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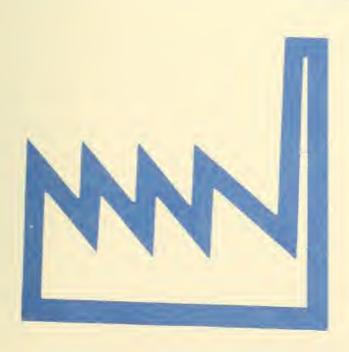
1987 Census of Manufactures

MC87-I-27A

INDUSTRY SERIES

Newspapers, Periodicals, Books, and Miscellaneous Publishing

Industries 2711, 2721, 2731, 2732, and 2741



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If you have any questions concerning the statistics in this report, call (301) 763-2510.

1987

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U.S. Department of Commerce Robert A. Mosbacher, Secretary Thomas J. Murrin, Deputy Secretary Michael R. Darby, Under Secretary for Economic Affairs

> BUREAU OF THE CENSUS Barbara Everitt Bryant, Director



BUREAU OF THE CENSUS Barbara Everitt Bryant, Director C. L. Kincannon, Deputy Director

Charles A. Waite, Associate Director for Economic Programs Roger H. Bugenhagen, Assistant Director for Economic and Agriculture Censuses

> Thomas L. Mesenbourg, Chief, Economic Census Staff

INDUSTRY DIVISION
Gaylord E. Worden, Chief

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INTRODUCTION

PURPOSE AND USES OF THE ECONOMIC **CENSUSES**

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the

Census of Retail Trade Census of Wholesale Trade Census of Service Industries Census of Transportation . Census of Manufactures Census of Mineral Industries Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying inter-

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial

activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully Integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were The first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT **ECONOMIC DATA**

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as Current Business Reports (retail and wholesale trade and service industries), the Annual Survey of Manufactures, Current Industrial Reports, and the Quarterly Financial Report. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the Guide to the 1987 Economic Censuses and Related Statistics. More information on the methodology, procedures, and history of the censuses will be published in the History of the 1987 Economic Censuses. Contact Customer Services for information on availability.

CENSUS OF MANUFACTURES

General

This report, from the 1987 Census of Manufactures, is one of a series of 83 industry reports, each of which provides statistics for individual industries or groups of related industries. Additional separate reports will be issued for each State and the District of Columbia and for special subjects such as type of organization, distribution of sales by class of customer, concentration ratios and water use in manufacturing.

The industry reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, capital expenditures, product shipments, etc.

State reports present similar statistics for each State and its important metropolitan statistical areas (MSA's), counties, and places. Selected statistical totals for "all manufacturing" have been shown in the State reports for MSA's with 250 employees or more and for counties and places with 450 employees or more.

The General Summary report will contain industry, product class, and geographic area statistics summarized in one report. The introduction to the General Summary discusses, at greater length, many of the subjects described in this introduction. For example, the General Summary text will discuss the relationship of value added by manufacture to National income by industry of origin, the changes in statistical concepts over the history of the censuses, and the valuation problems arising from intracompany transfers between manufacturing plants of a company and between manufacturing plants and sales offices and sales branches of a company.

Scope of Census and Definition of Manufacturing

The 1987 Census of Manufactures covers all establishments with one paid employee or more primarily engaged in manufacturing as defined in the 1987 Standard Industrial

Classification (SIC) Manual¹. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

The SIC Manual defines manufacturing as the mechanical or chemical transformation of substances or materials into new products. The assembly of component parts of products also is considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills that characteristically use powerdriven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfers to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salespersons. Some activities of a service nature (enameling, engraving, etc.) are included in manufacturing when they are performed primarily for trade. They are considered nonmanufacturing when they are performed primarily to the order of the household consumer.

Relationship Between Annual Survey of Manufactures and Census of Manufactures

The Bureau of the Census conducts the annual survey of manufactures (ASM) in each of the 4 years between the censuses of manufactures. The ASM is a probability-based sample of approximately 56,000 establishments and collects the same industry statistics (employment, payroll, value of shipments, etc.) as the census of manufactures. In addition to collecting the information normally requested on the census form, the establishments in the ASM sample are requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, costs of purchased services, and foreign content of materials consumed. Except for supplemental labor costs, the extra ASM items are collected only in census years.

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in

distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

In 1987, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures except for data on number of establishments for a few industries. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company (see Auxiliaries).

Manufacturing Universe and Census Report **Forms**

The 1987 Census of Manufactures universe includes approximately 350,000 establishments. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures. The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. Small Single-Establishment Companies Not Sent a Report Form

In the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of these small establishments was done on an industry-by-industry basis and was based on annual payroll and total shipments data as well as on the industry classification codes contained in the administrative records of Federal agencies. The cutoffs were selected so that these administrative-records cases would account for no more than 3 percent of the value of shipments for all manufacturing. Generally, all single-establishment companies with less than five employees were excused, while all establishments with more than 20 employees were mailed forms.

Information on the physical location of the establishment, as well as information on payrolls, receipts (shipments), and industry classification, was obtained from the administrative records of other Federal agencies under special arrangements, which safeguarded their confidentiality. Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost of materials

¹Standard Industrial Classification Manual: 1987: For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, Stock No. 041-001-00314-2.

were not distributed among specific products and materials for these establishments but were included in the product and material "not specified by kind" (n.s.k.) categories.

The industry classification codes included in the administrative-records files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded at the fourdigit SIC level. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes these administrative-record cases were only given a two- or three-digit SIC group. For the 1987 Census of Manufactures, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the four-digit SIC level. Establishments that did not return the classification form were coded later to those four-digit SIC industries identified as "not elsewhere classified" (n.e.c.) within the given two- or three-digit industry groups.

As a result of these situations, a number of small establishments may have been misclassified by industry. However, such possible misclassification has no significant effect on the statistics other than on the number of companies and establishments.

The total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the count of total number of establishments.

2. Establishments Sent a Report Form

The 200,000 establishments covered in the mail canvass were divided into three groups:

a. ASM sample establishments-This group consisted of approximately 56,000 establishments covering all the units of large manufacturing establishments as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size (see appendix, Annual Survey of Manufactures).

In a census of manufactures year, the ASM report form (MA-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, and costs of purchased services. See appendix A, section 2, for an explanation of these items.

The census part of the report form is one of approximately 200 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of these many forms to canvass the 459 manufacturing industries. Each form was developed for a group of related industries.

Appearing on each form was a list of products primary to the group of related industries as well as secondary products and miscellaneous services that establishments classified in these industries were likely to be performing. Respondents were requested to identify the products, the value of each product, and, in a large number of cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

The report form also contained a materialsconsumed inquiry, which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and, in certain cases, the quantity consumed. Once again, space was provided for the respondent to describe significant material not identified on the form.

Finally, a wide variety of special inquiries was included to measure activities peculiar to a given industry, such as operations performed and equipment used.

- b. Large and medium establishments (non-ASM)—Approximately 84,000 establishments were included in this group. A variable cutoff, based on administrative-records payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive one of the approximately 200 census of manufactures regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.
- c. Small single-establishment companies (non-ASM)—This group consisted of approximately 60,000 establishments. For those industries where application of the variable cutoff for administrativerecords cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or "short" form was used. These establishments received one of the approximately 80 versions of the short form, which requested

summary product and material data and totals but no details on employment, payrolls, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics; the same data were collected on the short form as on the long form. However, detailed information on materials consumed was not collected on the short form; thus its use would increase the value of the n.s.k. categories.

Auxiliaries

In this industry report, the data on employment and payroll are limited to operating manufacturing establishments. The census report form filed for auxiliaries (ES-9200) requested a description of the activity of the establishments serviced. However, the manufacturing auxiliaries were coded only to the two-digit major group of the establishments they served; whereas, the operating establishments were coded to a four-digit manufacturing industry. Data for the approximately 10,000 separately operated auxiliaries are included in the geographic area series and in a report issued as part of the 1987 Enterprise Statistics Survey.

Auxiliaries are establishments whose employees are primarily engaged in performing supporting services for other establishments of the same company, rather than for the general public or for other business firms. They can be at different locations from the establishments served or at the same location as one of those establishments but not operating as an integral part thereof and serving two establishments or more. Where auxiliary operations are conducted at the same location as the manufacturing operation and operate as an integral part thereof, they usually are included in the report for the operating manufacturing establishment.

Included in the broad category of auxiliaries are administrative offices. Employees in administrative offices are concerned with the general management of multiestablishment companies, i.e., with the general supervision and control of two units or more, such as manufacturing plants, mines, sales branches, or stores. The functions of these employees may include (1) program planning, including sales research and coordination of purchasing, production, and distribution; (2) company purchasing, including general contracts and purchasing methods; (3) company financial policy and accounting; (4) general engineering, including design of product machinery and equipment, and direction of engineering effort conducted at the individual operation locations; (5) direction of company personnel matters; and (6) legal and patent matters.

Other types of auxiliaries serving the plants or central management of the company include purchasing offices. sales promotion offices, research and development organizations, etc.

Industry Classification of Establishments

Each of the establishments covered in the census was classified in 1 of 459 manufacturing industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 Manual notes the revisions in the four-digit industry levels between 1972/77 and 1987.

An industry is generally defined as a group of establishments producing the same product or a closely related group of products. The product groupings from which industry classifications are derived are based on considerations such as similarity of manufacturing processes, types of materials used, types of customers, and the like. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees. The system operates in such a way that the definitions progressively become narrower with successive additions of numerical digits. For 1987, there are 20 major groups (two-digit SIC), 139 industry groups (three-digit SIC), and 459 industries (four-digit SIC). This represents an expansion of four-digit industries from 452 in 1972/77 and a reduction of threedigit groups from 143 in 1972/77. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are about 11,000 products identified by a seven-digit code. The seven-digit products are considered the primary products of the industry with the same four digits.

Accordingly, an establishment is usually classified in a particular industry on the basis of its major activity during a particular year, i.e., production of the products primary to that industry exceeds, in value, production of the products primary to any other single industry. In a few instances, however, the industry classification of an establishment is not only determined by the products it makes but also by the process employed in operations. Refining of nonferrous metals from ore or rolling and drawing of nonferrous metals (processes which involve heavy capitalization in specialized equipment) would be classified according to the process used during a census year. These establishments then would be "frozen" in that industry during the following ASM years.

In either a census or ASM year, establishments included in the ASM sample with certainty weight, other than those involved with heavily capitalized activities described above, are reclassified by industry only if the change in the primary activity from the prior year is significant or the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year (see appendix, Annual Survey of Manufactures). However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The result of these rules covering the switching of plants from one industry classification to another is that, at the aggregate level, some industries comprise different mixes of establishments between survey years, and establishment data for such industry statistics as employment and payroll may be tabulated in different industries between survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the four-digit SIC level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year versus the data shown for the previous ASM year.

As previously noted, the small establishments that may have been misclassified by industry are usually administrative-record cases whose industry codes were assigned on the basis of incomplete descriptions of the general activity of the establishment. Such possible misclassifications have no significant effect on the statistics other than on the number of companies and establishments.

While some establishments produce only the primary products of the industry in which they are classified, all establishments of an industry rarely specialize to this extent. The industry statistics (employment, inventories, value added by manufacture, total value of shipments including resales and miscellaneous receipts, etc.) shown in tables 1a through 5a, therefore, reflect not only the primary activities of the establishments in that industry but also their secondary activities. The product statistics in table 6a represent the output of all establishments whether or not they are classified in the same industry as the product. For this reason, in relating the industry statistics, especially the value of shipments to the product statistics, the composition of the industry's output shown in table 5b should be considered.

The extent to which industry and product statistics may be matched with each other is measured by two ratios which are computed from the figures shown in table 5b. The first of these ratios, called the primary product specialization ratio, measures the proportion of product shipments (both primary and secondary) of the establishments classified in the industry represented by the primary products of those establishments. The second ratio, called the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

However, establishments making products falling into the same industry category may use a variety of processes and materials to produce them. Also, the same industry classification (based on end products) may include both establishments that are highly integrated and those that put only the finishing touches on an already highly fabricated item. For example, the refrigeration equipment industry includes instances of almost complete integration (production of the compressor, condensing unit, electric motor, casting, stamping of the case, and final assembly) all

carried on at one plant. On the other hand, the condensing unit, the motor, and the case may be purchased and only assembled into the finished product.

In some instances, separate industry categories have been established for integrated and nonintegrated establishments. For other industries, the census provides separate statistics on the production of intermediate commodities made and used in the producing plant. For some industries characterized by many plants of the same company, separate figures on interplant transfers of products usually are shown.

Differences in the integration of production processes, types of operations, and alternatives in types of materials used should be considered when relating the industry statistics (employment, payrolls, value added, etc.) to the product and material data.

Value of Shipments for the Industry Compared With Value of Product Shipments

This report shows value of shipments data for industries and products. In tables 1a through 5a, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in table 6a represents the total value of all products shipped that are classified as primary to an industry.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose the data for an individual establishment or company. However, the number of establishments classified in a specific industry is not considered a disclosure, so this information may be released even though other information is withheld.

The disclosure analysis for the industry statistics in tables 1a through 5a of this report is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed. However, the suppressed data are included in higher-level totals. Additional disclosure analysis is performed for new capital expenditures that can be suppressed even though value of shipments data are publishable.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Manufactures may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential

information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, DC 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

***	Represents zero.
(D)	Withheld to avoid disclosing data for individual
	companies; data are included in higher level
	totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet pub-
	lication standards.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.

n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM Durables Nondurables	Kenneth Hansen Michael Zampogna	(301) 763-7304 (301) 763-2510
Current Indus- trial Reports Durables Nondurables	Malcolm Bernhardt Thomas Flood	(301) 763-2518 (301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Users' Guide for Locating Statistics in This Report by Table Number

For explanation of terms, see appendixes

			Four-dig	it industry s	statistics				ve-digit prov ven-digit pro		
Item	Histori- cal	Operat- ing ratios	By geo- graphic area	Sum- mary and supple- mental	By employ- ment size	By industry and product class specialization	Materials con- sumed by kind	Industry- product analysis	Product ship- ments	Product class by geo- graphic area	Historical product class
Number of companies	1a			За					*6a		
Number of establishments	1a		2	3a	4	5a					
Employment and payroll: Number of employees Payroll Supplemental labor costs Production workers Production- worker hours. Production- worker wages.	1a 1a 1a 1a 1a	1b 1b 1b 1b 1b	2 2 2 2 2	3a 3a 3a 3a 3a	4 4 4 4	5a 5a 5a 5a 5a					
Shipments, cost of materials, and value added: Value of shipments (four-digit)	1a 1a 1a	1b 1b 1b	2 2 2	3a 3a 3a 3a	4 4	5a 5a 5a	7	5b	6a 6a	6b	6c
Inventories: Total, end of year By stage of fabrication	1a			3a 3a	4						
Capital expenditures, assets, rental payments, and purchased services: New capital expenditures Used plant and equipment expenditures Gross assets Depreciation Retirements of buildings and machinery Rental payments Foreign content of materials consumed Purchased services	1a		2	3b 3b 3b 3b 3b 3c 3c	4	5a					
Ratios: Specialization Coverage	1a 1a			3a 3a				5b 5b			

^{*}Number of companies with shipments of more than \$100 thousand.

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DESCRIPTION OF INDUSTRIES AND SUMMARY OF FINDINGS

This report shows 1987 Census of Manufactures statistics for establishments classified in each of the following industries:

SIC code and title

2711	Newspapers
2721	Periodicals
2731	Book Publishing
2732	Book Printing
2741	Miscellaneous Publishing

The industry statistics (employment, payroll, cost of materials, value of shipments, inventories, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments but also their activities in the manufacture of secondary products as well as their miscellaneous activities (contract work on materials owned by others. repair work, etc.). This fact should be taken into account when comparing industry statistics (tables 1 through 5a) with product statistics (table 6) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5b, which shows the value of primary and secondary products shipped by establishments classified in the specified industry and the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Small single-establishment companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. For these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated), data on payrolls and receipts were obtained from administrative records of other Federal agencies. The remaining statistics were developed from industry averages.

Establishment data were tabulated based on industry definitions included in the 1987 Standard Industrial Classification (SIC) Manual¹. The 1987 edition represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. In addition to the 1987 SIC revision, changes were made to the product class (five-digit) and product code (seven-digit) categories. The

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

product class and product code comparability between the 1987 and 1982 censuses is shown in the appendixes. These appendixes present, in tabular form, the linkage from 1987 to 1982.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

INDUSTRY 2711, NEWSPAPERS

This industry is made up of establishments primarily engaged in publishing newspapers, or in publishing and printing newspapers. These establishments carry on the various operations necessary for issuing newspapers, including the gathering of news and the preparation of editorials and advertisements, but may or may not perform their own printing. Commercial printing is frequently carried on by establishments engaged in publishing and printing newspapers, but, even though the commercial printing may be of major importance, such establishments are included in this industry. Establishments not engaged in publishing newspapers, but which print newspapers for publishers, are classified in industry group 275. News syndicates are classified in Services, industry 7383.

The term "newspaper" includes those publications issued at regular frequencies which contain news of interest to the general public whether or not they are published in the English language. Publications have been classified as periodicals (industry 2721) rather than as newspapers if their news and editorial presentations do not appear to be directed to the public at large. Among the types of publications sometimes considered newspapers, but treated in the census as periodicals, are the following: trade journals, house organs, local church or school papers, and like publications with very limited or specialized news treatment. Generally, publications issued by nonprofit organizations (educational, religious, charitable, labor, business, professional, etc.) are classified as periodicals, as are magazine and comic supplements for Sunday newspapers. The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2711, Newspapers, had employment of 434.6 thousand. The employment figure was 8 percent above the 401.5 thousand reported in 1982. Compared with 1986, employment increased 3 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a

sample survey conducted each year between censuses. The leading States in employment in 1987 were California, New York, Texas, and Florida, accounting for 33 percent of the industry's employment. This represents a shift from 1982 when California, New York, Texas, and Pennsylvania accounted for 31 percent of the industry's employment.

The total receipts for establishments classified in this industry were \$31.9 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2711 shipped \$30.5 billion of products considered primary to the industry, \$1.0 billion of secondary products, and had \$318.4 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 97 percent (specialization ratio). In 1982, the specialization ratio was 96 percent.

Establishments in this industry also accounted for 100 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio also was 100 percent. The products primary to industry 2711, no matter in what industry they were produced, appear in table 6a and aggregate to \$30.5 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the newspaper industry amounted to \$7.5 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 14 percent of total value of shipments.

INDUSTRY 2721, PERIODICALS

This industry is made up of establishments primarily engaged in publishing periodicals, or in publishing and printing periodicals. These establishments carry on the various operations necessary for issuing periodicals, but may or may not perform their own printing. Establishments not engaged in publishing periodicals, but which print periodicals for publishers, are classified in industry group 275.

Data on the periodical publishing activities of nonprofit organizations (religious, educational, social, charitable, etc.) have been included to the extent that the employees of such organizations are covered under the Social Security System. For the distinction between newspapers and

periodicals which has been applied in classifying establishments for the census of manufactures, see the foregoing statements under industry 2711.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2721, Periodicals, had employment of 110.0 thousand. The employment figure was 17 percent above the 94.0 thousand reported in 1982. The leading States in employment in 1987 were New York, Illinois, California, and Pennsylvania, accounting for 56 percent of the industry's employment. These same States were the leaders in 1982, when they accounted for 61 percent of the industry's employment.

The total receipts for establishments classified in this industry were \$17.3 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2721 shipped \$15.8 billion of products considered primary to the industry, \$769.2 million of secondary products, and had \$766.8 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 95 percent (specialization ratio). In 1982, the specialization ratio was 93 percent.

Establishments in this industry also accounted for 96 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 97 percent. The products primary to industry 2721, no matter in what industry they were produced, appear in table 6a and aggregate to \$16.5 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the periodicals industry amounted to \$5.9 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 25 percent of total value of shipments.

INDUSTRY 2731, BOOK PUBLISHING

This industry is made up of establishments primarily engaged in publishing, or in publishing and printing, books and pamphlets. Establishments primarily engaged in printing or printing and binding books and pamphlets for publishers, but not publishing themselves are classified in industry 2732. Industry 2731 also includes data on book publishing activities obtained from nonprofit organizations

whose employees are covered under the Social Security System and were able to report their book publishing operations as a separate establishment.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2731, Book Publishing, had employment of 70.1 thousand. The employment figure was 4 percent above the 67.1 thousand reported in 1982. The leading States in employment in 1987 were New York, California, Illinois, and New Jersey, accounting for 54 percent of the industry's employment. These same States were the leaders in 1982, when they accounted for 58 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$12.6 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2731 shipped \$11.0 billion of products considered primary to the industry, \$1.0 billion of secondary products, and had \$597.2 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 92 percent (specialization ratio). In 1982, the specialization ratio was 94 percent.

Establishments in this industry also accounted for 95 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 91 percent. The products primary to industry 2731, no matter in what industry they were produced, appear in table 6a and aggregate to \$11.6 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the book publishing industry amounted to \$3.7 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 11 percent of total value of shipments.

INDUSTRY 2732, BOOK PRINTING

This industry is made up of establishments primarily engaged in printing, or in printing and binding, books and pamphlets, but not engaged in publishing. Establishments primarily engaged in publishing, or in publishing and printing, books and pamphlets are classified in industry 2731. Establishments engaged in both printing and binding books,

but primarily binding books printed elsewhere, are classified in industry 2789. Establishments classified in industry 2732 are similar in character to some establishments primarily engaged in commercial printing (industries 2752, 2754, and 2759). The distinction is that all the establishments classified in industry 2732 derive the greater part of their revenue from printing books and pamphlets, while such operations are secondary activities for establishments classified in industries 2752, 2754, and 2759.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2732, Book Printing, had employment of 43.5 thousand. The employment figure was 3 percent below the 44.7 thousand reported in 1982. Compared with 1986, employment stayed the same. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses. The leading States in employment in 1987 were Pennsylvania, Tennessee, and Massachusetts, accounting for 27 percent of the industry's employment. This represents a shift from 1982 when Pennsylvania, New York, and Tennessee accounted for 30 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was \$3.3 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2732 shipped \$2.9 billion of products considered primary to the industry, \$354.0 million of secondary products, and had \$35.5 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 89 percent (specialization ratio). In 1982, the specialization ratio also was 89 percent.

Establishments in this industry also accounted for 88 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 84 percent. The products primary to industry 2732, no matter in what industry they were produced, appear in table 6a and aggregate to \$3.2 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the book printing industry amounted to \$1.3 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 11 percent of total value of shipments.

INDUSTRY 2741, MISCELLANEOUS PUBLISHING

This industry is made up of establishments primarily engaged in miscellaneous publishing activities, not elsewhere classified, whether or not engaged in printing. Establishments primarily engaged in offering financial, credit, or other business services, and which may publish directories as part of this service, are classified in Division I, Services.

The 1987 definition of this industry is the same as that used in the 1972/7 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1987 Census of Manufactures, Industry 2741, Miscellaneous Publishing, had employment of 69.4 thousand. The leading States in employment in 1987 were New York, California, Michigan, and New Jersey, accounting for 38 percent of the industry's employment.

The total receipts for establishments classified in this industry were \$7.8 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry to which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 2741 shipped \$7.4 billion of products considered primary to the industry, \$147.3 million of secondary products, and

had \$243.3 million of miscellaneous receipts. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in the industry was 98 percent (specialization ratio). In 1982, the specialization ratio was 95 percent.

Establishments in this industry also accounted for 91 percent of products considered primary to the industry no matter where they actually were produced (coverage ratio). In 1982, the coverage ratio was 86 percent. The products primary to industry 2741, no matter in what industry they were produced, appear in table 6a and aggregate to \$8.2 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and electric energy used by establishments classified in the miscellaneous publishing industry amounted to \$1.8 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 23 percent of total value of shipments.

Table 1a. Historical Statistics for the Industry: 1987 and Earlier Years

[1987 industry definitions are the same as in the 1972/77 Standard Industrial Classification (SIC) system. Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

[1987 industry defitext. For explans			endixes]	Г	oloyees		duction wo								tios
Year¹	Com- panies ² (no.)	Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufac- ture ⁴ (million dollars)	Cost of materials ⁵ (million dollars)	Value of shipments (million dollars)	New capital expend- itures ⁶ (million dollars)	End-of- year inven- tories ⁴ (million dollars)	Spe- ciali- zation ⁷ (per- cent)	Cover- age ⁸ (per- cent)
	(110.)	(110.)	(110.)	(1,000)	uonars)	(1,000)			NEWSPAPER		dollars)	dollars)	uoliais)	Certi	Centy
1987 Census 1986 ASM 1985 ASM 1984 ASM 1983 ASM	7 465 (NA) (NA) (NA) (NA)	9 091 (NA) (NA) (NA) (NA)	2 617 (NA) (NA) (NA) (NA)	434.6 420.0 411.0 398.6 404.1	9 025.0 8 380.5 7 904.7 7 366.7 7 059.1	148.5 151.9 151.3 148.5 150.0	262.6 270.0 265.9 264.9 263.6	2 986.7 2 913.0 2 829.0 2 712.1 2 600.2	24 310.7 22 168.6 20 426.3 18 871.7 17 298.2	7 533.4 7 024.5 6 584.6 6 429.3 5 991.5	31 849.2 29 205.9 27 014.7 25 302.2 23 259.4	1 522.7 1 296.0 1 429.7 1 086.6 991.3	857.1 783.6 833.7 829.0 795.4	97 (NA) (NA) (NA) (NA)	100 (NA) (NA) (NA) (NA)
1982 Census 1981 ASM 1980 ASM 1979 ASM 1978 ASM	7 520 (NA) (NA) (NA) (NA)	8 846 (NA) (NA) (NA) (NA)	2 554 (NA) (NA) (NA) (NA)	401.5 419.0 414.0 396.2 365.5	6 554.7 6 288.9 5 761.5 5 213.7 4 796.4	147.2 164.6 163.0 157.6 151.7	259.3 286.9 279.2 273.0 261.5	2 386.6 2 411.8 2 264.4 2 083.6 1 958.8	15 275.3 14 257.6 12 809.5 11 629.5 10 522.4	6 006.4 5 793.0 5 153.7 4 568.1 4 035.4	21 276.3 20 050.2 17 962.7 16 196.7 14 557.5	1 029.2 1 023.1 974.7 765.3 625.5	754.9 681.7 516.3 415.4 394.3	96 (NA) (NA) (NA) (NA)	100 (NA) (NA) (NA) (NA)
1977 Census 1976 ASM 1975 ASM 1974 ASM 1973 ASM 1972 Census	7 836 (NA) (NA) (NA) (NA) (NA) 7 467	8 867 (NA) (NA) (NA) (NA) 8 116	2 147 (NA) (NA) (NA) (NA) 2 119	349.9 364.2 360.4 358.1 353.2 348.5	4 306.0 4 068.1 3 770.2 3 598.5 3 385.3 3 168.1	147.2 162.3 165.5 166.9 167.3 169.7	252.5 275.9 284.3 292.0 293.2 298.4	1 805.3 1 784.8 1 708.7 1 699.3 1 613.9 1 536.8	9 519.1 8 482.3 7 578.4 7 044.9 6 677.0 6 219.9	3 539.2 3 180.2 2 856.4 2 528.0 2 192.4 2 043.5	13 055.9 11 659.2 10 432.6 9 567.9 8 868.4 8 262.8	478.1 376.7 362.7 408.2 385.3 359.5	382.1 367.9 302.9 289.4 187.0 152.5	96 (NA) (NA) (NA) (NA) 96	100 (NA) (NA) (NA) (NA) 100
							INDUST	RY 2721,	PERIODICAL	s					
1987 Census 1986 ASM 1985 ASM 1984 ASM	3 757 (NA) (NA) (NA) (NA)	4 020 (NA) (NA) (NA) (NA)	876 (NA) (NA) (NA) (NA)	110.0 98.1 95.8 93.5 93.4	2 982.7 2 710.9 2 554.5 2 231.7 2 073.7	18.3 14.2 16.2 16.2 17.3	32.4 24.9 28.4 28.8 31.9	358.2 288.9 272.4 250.8 256.3	11 452.1 10 196.0 9 678.1 8 943.9 7 868.9	5 872.7 5 558.1 5 579.8 5 117.6 4 603.6	17 329.2 15 719.4 15 246.4 14 052.6 12 436.7	246.4 274.1 339.7 267.4 251.7	901.9 783.9 817.6 803.5 774.2	95 (NA) (NA) (NA) (NA)	96 (NA) (NA) (NA) (NA)
1982 Census 1981 ASM 1980 ASM 1979 ASM	3 143 (NA) (NA) (NA) (NA)	3 328 (NA) (NA) (NA) (NA)	690 (NA) (NA) (NA) (NA)	94.0 79.9 77.8 76.3 74.8	1 986.1 1 564.0 1 427.7 1 253.3 1 169.8	17.4 14.1 13.3 14.1 12.1	31.9 24.4 22.7 20.6 22.3	243.2 183.8 163.2 143.9 132.9	6 910.9 6 075.3 5 599.8 4 986.7 4 430.7	4 568.1 3 789.7 3 374.0 3 055.9 2 760.9	11 478.0 9 843.0 8 964.6 8 311.3 7 160.0	194.8 170.9 132.6 119.5 89.8	723.9 585.6 552.3 488.6 429.2	93 (NA) (NA) (NA) (NA)	97 (NA) (NA) (NA) (NA)
1977 Census 1976 ASM 1975 ASM 1974 ASM 1973 ASM 1972 Census	2 863 (NA) (NA) (NA) (NA) (NA) 2 456	2 994 (NA) (NA) (NA) (NA) 2 534	525 (NA) (NA) (NA) (NA) 452	69.9 72.5 72.9 71.7 70.1 66.5	1 019.8 950.8 880.0 808.2 760.8 708.5	10.6 13.9 13.6 13.0 12.6 11.1	20.5 23.8 24.3 23.7 22.7 21.1	115.7 128.8 117.1 104.3 95.9 84.6	3 762.7 3 084.2 2 652.1 2 435.8 2 344.4 2 109.9	2 289.2 1 962.2 1 744.1 1 656.9 1 513.3 1 404.2	6 056.5 5 043.5 4 379.7 4 059.4 3 855.7 3 510.6	78.9 64.5 62.2 56.1 60.0 56.8	349.6 280.3 285.4 259.8 221.5 197.2	90 (NA) (NA) (NA) (NA) 89	96 (NA) (NA) (NA) (NA) 95
	INDUSTRY 2731, BOOK PUBLISHING														
1987 Census 1986 ASM 1985 ASM 1984 ASM	2 180 (NA) (NA) (NA) (NA)	2 298 (NA) (NA) (NA) (NA)	424 (NA) (NA) (NA) (NA)	70.1 71.6 70.9 69.4 69.3	1 859.8 1 775.6 1 672.1 1 600.3 1 474.9	15.9 14.4 15.6 14.9 17.1	28.7 25.6 28.6 27.2 33.0	306.1 259.4 279.8 268.3 277.9	9 110.7 7 755.9 7 395.8 6 722.9 5 823.8	3 663.2 3 099.8 3 021.1 2 890.1 2 683.2	12 619.5 10 731.5 10 196.2 9 459.2 8 427.4	239.7 202.8 232.1 199.4 163.6	2 090.9 1 982.2 1 895.1 1 713.8 1 521.1	92 (NA) (NA) (NA) (NA)	95 (NA) (NA) (NA) (NA)
1982 Census 1981 ASM 1980 ASM 1979 ASM	2 007 (NA) (NA) (NA) (NA)	2 130 (NA) (NA) (NA) (NA)	419 (NA) (NA) (NA) (NA)	67.1 63.5 64.5 63.4 63.5	1 327.3 1 123.3 1 035.4 946.6 910.5	15.2 14.3 14.4 13.3 13.5	30.8 27.4 27.1 24.6 24.5	237.1 194.3 177.1 159.9 155.8	5 291.5 4 623.2 4 148.8 3 783.5 3 739.0	2 420.0 2 165.7 1 999.9 1 858.8 1 735.1	7 740.0 6 760.4 6 114.4 5 574.2 5 398.2	174.1 153.0 126.3 117.4 97.4	1 379.9 1 324.8 1 223.8 1 174.4 1 062.8	94 (NA) (NA) (NA) (NA)	91 (NA) (NA) (NA) (NA)
1977 Census 1976 ASM 1975 ASM ¹⁰ 1974 ASM 1973 ASM	1 652 (NA) (NA) (NA) (NA) 1 124	1 745 (NA) (NA) (NA) (NA) 1 205	346 (NA) (NA) (NA) (NA) 307	59.5 58.2 55.5 54.4 59.2 57.1	830.2 747.1 685.2 621.5 610.4 557.7	13.3 15.9 15.0 14.1 15.9 16.2	24.9 28.2 26.0 25.5 28.5 31.4	140.1 157.8 137.8 121.3 135.6 128.6	3 261.9 2 711.6 2 428.1 2 311.6 2 085.6 1 935.8	1 544.2 1 287.6 1 157.7 1 119.6 1 063.1 959.9	4 793.9 3 967.5 3 536.5 3 348.8 3 142.9 2 856.8	79.8 977.7 75.1 55.9 48.9 48.4	992.0 875.2 827.9 788.9 673.0 629.4	94 (NA) (NA) (NA) (NA) 93	88 (NA) (NA) (NA) (NA) 86
							INDUSTR	Y 2732, B	OOK PRINTI	NG					
1987 Census 1986 ASM 1985 ASM 1984 ASM	520 (NA) (NA) (NA) (NA)	581 (NA) (NA) (NA) (NA)	269 (NA) (NA) (NA) (NA)	43.5 43.5 43.4 42.2 43.6	961.4 930.4 886.7 848.7 812.1	34.4 34.0 33.9 32.7 33.3	67.7 68.2 66.5 64.8 64.8	675.6 648.6 618.1 594.1 557.4	1 996.5 1 883.3 1 765.3 1 671.2 1 535.5	1 269.3 1 234.5 1 174.9 1 169.6 1 029.7	3 256.3 3 102.4 2 919.4 2 828.2 2 572.3	154.4 181.3 9202.1 9113.3 100.3	297.0 300.3 273.4 277.6 250.3	(NA) (NA) (NA) (NA) (NA)	88 (NA) (NA) (NA) (NA)
1982 Census 1981 ASM 1980 ASM 1979 ASM	637 (NA) (NA) (NA) (NA)	681 (NA) (NA) (NA) (NA)	308 (NA) (NA) (NA) (NA)	44.7 50.1 48.2 46.2 49.1	762.5 800.0 695.4 617.2 614.8	34.5 39.6 37.7 37.1 39.5	64.7 75.9 71.9 72.0 77.0	542.6 576.5 499.3 453.5 444.3	1 429.9 1 526.4 1 346.2 1 214.9 1 163.2	948.1 1 030.8 903.6 808.3 757.1	2 392.4 2 556.1 2 244.8 2 024.0 1 923.8	98.6 103.7 94.4 80.9 9102.8	243.6 245.5 233.7 220.3 209.7	89 (NA) (NA) (NA) (NA)	84 (NA) (NA) (NA) (NA)
1977 Census 1978 ASM 1975 ASM 1974 ASM 1973 ASM 1972 Census	900 (NA) (NA) (NA) (NA) 872	950 (NA) (NA) (NA) (NA) 700	370 (NA) (NA) (NA) (NA) 287	46.9 42.7 43.9 40.9 42.8 40.9	548.2 464.7 446.0 416.2 391.3 361.2	37.6 33.3 34.5 32.9 34.4 33.0	72.6 63.4 64.3 63.9 66.9 64.5	404.1 342.0 328.9 314.6 288.0 269.0	1 029.2 809.0 758.5 697.8 676.5 604.5	662.6 517.7 477.6 449.5 395.9 332.4	1 691.8 1 327.9 1 240.7 1 127.2 1 063.9 937.7	54.3 51.1 63.0 943.7 934.5 33.9	194.0 163.6 159.5 160.5 118.1 99.4	85 (NA) (NA) (NA) (NA) (NA)	78 (NA) (NA) (NA) (NA) 73
									ANEOUS PU						
1987 Census 1986 ASM 1985 ASM 1984 ASM 1983 ASM	2 136 (NA) (NA) (NA) (NA)	2 369 (NA) (NA) (NA) (NA)	597 (NA) (NA) (NA) (NA)	69.4 53.1 52.0 42.0 44.8	1 513.2 1 129.1 1 047.4 775.9 712.2	24.1 18.4 17.1 16.6 18.4	44.1 31.3 29.5 28.2 29.9	365.2 275.3 239.2 210.9 211.6	6 022.9 3 631.5 3 264.6 2 321.9 2 105.4	1 791.0 1 246.9 1 199.5 949.4 943.4	7 809.5 4 887.4 4 437.0 3 222.9 3 011.7	133.0 102.6 109.7 69.1 82.5	467.9 347.5 349.5 307.5 298.3	98 (NA) (NA) (NA) (NA)	91 (NA) (NA) (NA) (NA)
1982 Census 1981 ASM 1980 ASM 1979 ASM	1 952 (NA) (NA) (NA) (NA)	2 057 (NA) (NA) (NA) (NA)	430 (NA) (NA) (NA) (NA)	45.3 41.7 47.4 46.4 42.4	705.9 666.2 643.6 568.7 525.4	17.9 20.3 22.2 21.4 16.4	29.2 36.8 39.2 38.1 27.7	206.2 232.1 211.2 194.7 162.8	1 958.2 1 891.7 1 792.9 1 535.0 1 310.9	909.6 788.6 732.6 624.3 565.2	2 871.3 2 674.5 2 505.4 2 142.0 1 894.6	67.1 60.0 58.7 955.1 965.8	244.4 230.9 219.3 180.6 139.9	95 (NA) (NA) (NA) (NA)	86 (NA) (NA) (NA) (NA)

Table 1a. Historical Statistics for the Industry: 1987 and Earlier Years-Con.

[1987 industry definitions are the same as in the 1972/77 Stenderd industrial Classification (SIC) system. Excludes deta for auxiliaries. For meaning of ebbraviations and symbols, see introductory text. For axplanation of terms, saa appendixes]

		Ail astabli	ishments³	All em	ployees	Pro	duction wo	kers						Rat	tios
Yaar¹	Com- panies² (no.)	Total (no.)	With 20 employ- ees or more (no.)	Number (1,000)	Payroil (million dollars)	Numbar (1,000)	Houra (millions)	Wages (million dollers)	Velua addad by manufac- ture ⁴ (million dollars)	Cost of materiala ⁵ (million dollars)	Velue of ahipments (million dollars)	Naw capital axpand- ituras ⁶ (million dollars)	End-of- yaar invan- tories ⁴ (million doilars)	Spe- cieli- zation ⁷ (per- cent)	Cover- age ⁸ (per- cent)
					1	NDUSTR	Y 2741, M	EOUS PUBL	ISHING—Co	n.					
1977 Cansus 1976 ASM 1975 ASM 1974 ASM	2 277 (NA) (NA) (NA) (NA)	2 352 (NA) (NA) (NA) (NA)	335 (NA) (NA) (NA) (NA)	42.1 34.7 33.5 36.0 38.3	503.0 387.7 362.3 344.5 335.4	15.4 13.7 12.8 14.9 18.7	27.1 24.2 21.8 26.2 32.9	150.3 123.7 107.3 115.2 130.3	1 290.7 946.2 862.3 783.2 790.4	569.9 393.9 334.0 314.6 302.8	1 850.9 1 332.6 1 192.4 1 093.5 1 088.9	39.1 940.1 938.1 920.7 920.1	139.1 93.8 81.2 85.0 75.7	95 (NA) (NA) (NA) (NA)	89 (NA) (NA) (NA) (NA)

In annuel survay of manufactures (ASM) yeers, data era astimatas based on a rapresentetive semple of establishments cenvessed annuelly end may differ from results of a complete canvass of all esteblishments. ASM publication shows parcantaga standard arrors. Unless otherwise noted, for data prior to 1972, sae 1972 Census of Manufacturas, vol. II, table 1a of tha Industry chapter.

Table 1b. Selected Operating Ratios for the Industry: 1987 and Earlier Years

[1987 industry definitions are the same es in the 1972/77 Standard Industrial Classification (SIC) system. Excludes data for auxiliarias. For meaning of abbraviations and symbols, see introductory text. For axplanation of terms, see appendixes]

Year	Payroll per empioyea (doilars)	Production workers as percent of total amployment (percent)	Annual hours of production workars (number)	Avarege hourly earnings of production workars (dollars)	Cost of materials es percent of value of shipmants (percant)	Cost of materials and payroll as percent of value of shipments (percent)	Value added par employea (doliars)	Payroll as percent of value added (percent)	Valua added per production worker hour (dollars)			
				INDUST	NDUSTRY 2711, NEWSPAPERS							
1987 Census	20 766	34	1 768	11.37	24	52	55 938	37	92.58			
1986 ASM	19 953	36	1 777	10.79	24	53	52 782	38	82.11			
1985 ASM	19 232	37	1 757	10.64	24	54	49 699	39	76.82			
1984 ASM	18 481	37	1 784	10.24	25	55	47 345	39	71.24			
1983 ASM	17 468	37	1 757	9.86	26	56	42 807	41	65.62			
1982 Census	16 325	37	1 762	9.20	28	59	38 046	43	58.91			
	15 009	39	1 743	8.41	29	60	34 028	44	49.70			
	13 916	39	1 713	8.11	29	61	30 941	45	45.88			
	13 159	40	1 732	7.63	28	60	29 353	45	42.60			
	13 122	42	1 724	7.49	28	61	28 789	46	40.24			
1977 Census	12 306	42	1 715	7.15	27	60	27 205	45	37.70			
	11 169	45	1 700	6.47	27	62	23 290	48	30.74			
	10 461	46	1 718	6.01	27	64	21 028	50	26.66			
	10 048	47	1 750	5.82	26	64	19 673	51	24.13			
	9 584	47	1 753	5.50	25	63	18 904	51	22.77			
	9 090	49	1 758	5.15	25	63	17 848	51	20.84			
				INDUST	'RY 2721, PERI	ODICALS						
1987 Census	27 115	17	1 770	11.06	34	51	104 110	26	353.46			
	27 634	14	1 754	11.60	35	53	103 935	27	409.48			
	26 664	17	1 753	9.59	37	53	101 024	26	340.78			
	23 868	17	1 778	8.71	36	52	95 657	25	310.55			
	22 202	19	1 844	8.03	37	54	84 249	26	246.67			
1982 Census	21 128	19	1 833	7.62	40	57	73 520	29	216.64			
	19 574	18	1 730	7.53	39	54	76 036	26	248.99			
	18 350	17	1 707	7.19	38	54	71 977	25	246.69			
	16 425	18	1 461	6.99	37	52	65 356	25	242.07			
	15 639	16	1 843	5.96	39	55	59 234	26	198.69			
1977 Census 1976 ASM 1975 ASM 1975 ASM 1974 ASM 1973 ASM	14 589 13 114 12 071 11 271 10 853 10 654	15 19 19 18 18 18	1 934 1 712 1 787 1 823 1 802 1 901	5.64 5.41 4.82 4.40 4.22 4.01	38 39 40 41 39 40	55 58 60 61 59	53 830 42 541 36 380 33 972 33 444 31 728	27 31 33 33 32 34	183.55 129.59 109.14 102.78 103.28 100.00			

chapter.

2For tha Cansus, a company is defined as a business organization consisting of one astablishment or more under common ownership or control.

3Includas astablishments with payroll et eny tima during yeer.

4Baginning with tha 1982 Census of Menufactures, ell raspondants were requested to report their inventories at (the lower of) cost or market prior to edjustment to LIFO cost. This is a change from prior Cansuses end ennual surveys of menufactures in which raspondents were permitted to value their inventories using any generally accepted accounting mathod. Consequently, inventorias and valua added by menufacture are not compereble to prior-year data.

5Detailed data on materials consumed by typa are shown in table 7.

5Detailed data on mew mechinery end equipmant axpendituras are provided in table 3c.

7Raprasents ratio of primary product shippad by astablishments classified in industry to total shipments of such products by all menufecturing esteblishments, wherever classified.

6Estimates for naw capital axpenditures heve associated standard errors axceading 15 percent or more end may be of limited raliability. Estimates for other data items are of acceptable raliability.

1Data either have associated standard errors axceading 15 percent or not consistent with other census series and releted data: thus these astimates may be of limited raliability.

¹⁰Data eithar hava associated standard errors axcaading 15 parcant or are not consistent with other census series and releted data; thus these astimates may ba of limitad raliability.

Table 1b. Selected Operating Ratios for the Industry: 1987 and Earlier Years-Con.

[1987 industry definitions ere the same es in the 1972/77 Stenderd Industriel Clessification (SIC) system. Excludes dete for euxilleries. For meening of abbrevietions end symbols, see introductory text. For explanation of terms, see appendixes]

	terms, see append													
Year	Peyroll per employee (dollers)	Production workers as percent of totel employment (percent)	Annuel hours of production workers (number)	Averege hourly eernings of production workers (dollers)	Cost of meteriels es percent of velue of shipments (percent)	Cost of meteriels end peyroll es percent of velue of shipments (percent)	Velue added per employee (dollers)	Peyroll es percent of value added (percent)	Velue edded per production worker hour (dollars)					
				INDUSTRY	7 2731, BOOK F	UBLISHING								
1987 Census	26 531	23	1 805	10.67	29	44	129 967	20	317.45					
1986 ASM	24 798	20	1 778	10.13	29	45	108 323	23	302.96					
1985 ASM	23 583	22	1 833	9.78	30	46	104 313	23	258.59					
1984 ASM	23 059	21	1 826	9.86	31	47	96 872	24	247.17					
1983 ASM	21 282	25	1 930	8.42	32	49	84 038	25	176.48					
1962 Census	19 780	23	2 026	7.70	31	48	78 860	25	171.80					
	17 689	23	1 916	7.09	32	49	72 806	24	168.73					
	16 052	22	1 882	6.54	33	5 0	64 322	25	153.09					
	14 930	21	1 850	6.50	33	50	59 677	2 5	153.80					
	14 338	21	1 815	6.36	32	49	5 8 882	24	152.61					
1977 Census	13 952	22	1 872	5.63	32	50	54 822	25	131.00					
1976 ASM	12 836	27	1 774	5. 60	32	51	46 591	28	96.16					
1975 ASM	12 34 5	27	1 733	5.30	33	52	43 750	28	93.39					
1974 ASM	11 424	26	1 809	4.76	33	52	42 493	27	90.65					
1973 ASM	10 310	27	1 792	4.76	34	53	35 230	29	73.18					
1972 Census	9 767	28	1 938	4.10	34	53	33 902	29	61.65					
	INDUSTRY 2732, BOOK PRINTING													
1987 Census	22 101	79	1 968 2	9.98	39	69	45 897	48	29.49					
	21 388	78	2 006	9. 51	40	70	43 294	49	27.61					
	20 430	78	1 962	9.29	40	71	40 675	50	26. 55					
	20 111	77	1 982	9.17	41	71	39 602	5 1	25.79					
	18 626	76	1 946	8.60	41	72	35 218	5 3	23.70					
1982 Census	17 058	77	1 87 5	8.39	40	72	31 989	53	22.10					
1981 ASM	15 968	79	1 917	7.60	40	72	30 467	52	20.11					
1980 ASM	14 427	78	1 907	6.94	40	71	27 929	52	18.72					
1979 ASM	13 359	80	1 941	6.30	40	70	26 297	51	16.87					
1978 ASM	12 521	80	1 949	5.77	39	71	23 690	53	15.11					
1977 Census	11 688	80	1 931	5.57	39	72	21 945	53	14.18					
	10 882	78	1 904	5.39	39	74	18 946	57	12.76					
	10 159	79	1 864	5.12	38	74	17 278	59	11.80					
	10 176	80	1 942	4.92	40	77	17 061	60	10.92					
	9 142	80	1 945	4.30	37	74	15 806	58	10.11					
	8 831	81	1 955	4.17	35	74	14 780	60	9.37					
			ı	NDUSTRY 2741	, MISCELLANE	OUS PUBLISHIN	G							
1987 Census	21 804	35	1 830	8.28	23	42	86 785	25	136.57					
	21 263	35	1 701	8.80	26	49	68 390	31	116.02					
	20 142	33	1 725	8.11	27	51	62 781	32	110.66					
	18 473	40	1 699	7.48	29	54	55 283	33	82.34					
	15 897	41	1 625	7.08	31	55	46 996	34	70.41					
1982 Census	15 582	40	1 631	7.06	32	56	43 227	36	67.06					
	15 976	49	1 813	6.31	29	54	45 365	35	51.40					
	13 578	47	1 766	5.39	29	55	37 82 5	36	45.74					
	12 256	46	1 780	5. 11	29	56	33 082	37	40.29					
	12 391	39	1 689	5. 88	30	58	30 917	40	47.32					
1977 Census	11 947	37	1 760	5.55	31	58	30 658	39	47.63					
	11 172	39	1 766	5.11	30	59	27 268	41	39.10					
	10 814	38	1 703	4.92	28	58	25 740	42	39.56					
	9 5 69	41	1 758	4.40	29	60	21 756	44	29.89					
	8 757	49	1 759	3.96	28	59	20 637	42	24.02					
	8 5 36	49	1 660	4.26	28	5 9	19 995	43	24.47					

Note: For qualifications of data, see footnotes on table 1a.

Table 2. Industry Statistics for Selected States: 1987 and 1982

[Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

	1987													1982		
		All estab	ishments	All employees		Production workers										
Industry and geographic area	E1	Total (no.)	With 20 employ- ees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufac- ture (million dollars)	Cost of materials (million dollars)	shipments	New capital expend- itures (million dollars)	All employ- ees ² (1,000)	Value added by manufac- ture (million dollars)		
INDUSTRY 2711, NEWSPAPERS																
United States	E1	9 091	2 617	434.6	9 025.0	148.5	262.6	2 986.7	24 310.7	7 533.4	31 849.2	1 522.7	401.5	15 275.3		
Alabama	E4	125 30 117 117 732	37 7 32 39 247	4.2 1.2 8.7 3.7 52.1	73.6 23.4 140.5 54.6 1 160.2	1.6 .5 1.8 1.5 16.2	2.8 .9 3.5 2.7 29.1	23.8 9.9 42.8 20.1 380.0	222.6 45.8 403.8 118.0 3 066.9	59.4 13.2 108.1 48.2 855.8	281.9 59.0 511.9 166.2 3 924.9	10.2 2.0 38.9 19.8 151.4	3.9 .9 5.2 3.3 46.1	139.7 34.5 199.3 82.8 1 894.3		

Table 2. Industry Statistics for Selected States: 1987 and 1982—Con.

[Excludes data for auxiliaries. State	s with	h 150 emp	loyees or	more are s	hown. For r	meaning of			nbols, see intro	ductory text.	For explanation	n of terms, s		
							198							1982
Industry and geographic area	E١	Total (no.)	With 20 employ- ees or more (no.)		Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufac- ture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expend- itures (million dollars)	All employ- ees ² (1,000)	Value added by manufac- ture (million dollars)
INDUSTRY 2711, NEWSPAPERS—Con.														
Colorado	E3 E1 - -	159 107 18 28 317	39 41 3 8 95	7.2 8.2 CC FF 25.2	145.0 175.7 (D) (D) 501.7	2.5 2.3 (D) (D) 7.8	4.1 4.0 (D) (D) 14.0	50.1 44.8 (D) (D) 151.8	322.3 455.8 (D) (D) 1 524.7	122.2 114.9 (D) (D) 512.9	444.5 570.9 (D) (D) 2 034.4	42.6 43.7 (D) (D) 129.3	6.7 6.9 CC FF 21.9	223.2 236.9 (D) (D) 962.1
Georgia Hawaii Idaho Illinois Indiana	E1 -	225 17 56 406 212	57 8 16 116 80	8.9 1.3 1.7 19.4 9.7	147.2 33.8 25.9 414.9 178.4	3.0 .6 .8 7.0 3.5	5.7 1.1 1.4 12.7 6.0	50.9 15.6 12.0 140.3 59.9	505.9 175.4 63.5 1 187.3 419.4	171.9 24.2 18.1 381.9 129.7	685.6 199.6 81.8 1 571.1 549.1	67.5 (D) 11.1 39.1 37.5	9.1 EE 1.6 19.6 9.7	291.9 (D) 50.7 783.8 299.7
lowa Kansas Kentucky Louisiana Maine	E1 E1 E1	271 186 157 129 73	56 41 45 35 17	5.9 FF 4.7 4.7 2.6	85.6 (D) 95.6 95.9 49.0	2.2 (D) 1.6 1.8 1.0	3.5 (D) 3.0 3.5 1.7	29.2 (D) 29.3 37.6 17.6	255.2 (D) 223.4 258.1 113.6	71.0 (D) 71.6 94.7 28.9	326.1 (D) 294.9 352.8 142.5	8.9 (D) 5.9 33.1 4.2	6.7 3.9 4.6 5.0 2.2	193.8 115.2 152.9 206.9 64.2
Maryland Massachusetts Michigan Minnesota Mississippi	E1 E2 E1 E1	94 239 252 299 104	35 81 84 55 29	6.1 16.1 13.1 8.2 FF	133.9 382.0 302.7 180.0 (D)	2.0 4.9 4.4 2.8 (D)	3.6 8.4 7.6 4.7 (D)	42.5 108.5 92.4 64.3 (D)	372.4 1 030.6 667.2 432.5 (D)	117.8 281.2 262.2 112.7 (D)	490.2 1 311.1 929.5 545.2 (D)	30.5 59.9 (D) (D)	4.8 13.5 12.5 8.3 2.9	202.3 563.8 454.1 264.9 80.3
Missouri	E1 E2 E1	294 84 137 40 58	66 14 32 10 20	8.2 1.4 3.2 1.6 2.2	166.7 21.8 46.5 27.9 42.7	3.1 .5 1.2 .7	5.5 .8 2.1 1.2 1.3	60.7 6.1 15.6 12.4 13.1	441.9 65.8 122.9 94.7 107.3	168.5 13.0 42.6 31.4 26.5	610.4 78.8 165.5 126.1 133.8	9.6 1.8 3.1 1.7 3.6	8.2 1.5 3.1 1.5 1.4	304.7 50.4 97.6 63.3 42.8
New Jersey	E1 E2 E3	258 53 555 223 82	72 16 158 84 12	14.1 1.8 38.8 9.6 EE	309.7 36.2 1 031.7 166.8 (D)	4.0 .6 13.7 3.9 (D)	6.7 .9 24.9 6.5 (D)	87.6 8.7 388.1 59.1 (D)	879.2 105.3 2 659.0 454.0 (D)	312.9 23.7 883.5 141.5 (D)	1 192.0 129.1 3 541.9 595.4 (D)	43.1 10.1 126.2 (D) (D)	12.8 2.0 31.2 8.2 1.5	489.8 74.0 1 573.8 261.3 43.0
Ohio Oklahoma Oregon Pennsylvania Rhode Island	E1 E1	309 175 126 314 27	115 40 42 121 11	17.4 4.9 4.6 22.7 2.6	364.8 87.0 92.0 501.8 63.5	6.6 1.8 1.6 8.4 1.1	11.9 3.4 2.8 13.2 1.9	133.2 28.3 32.2 171.8 19.8	970.3 229.8 219.7 1 163.7 128.4	303.6 65.8 82.8 395.3 36.8	1 273.8 295.5 302.4 1 557.6 165.2	46.1 8.2 7.7 45.2 (D)	18.4 5.1 4.5 22.9 2.2	653.1 187.0 165.7 777.7 76.8
South Carolina South Dakota Tennessee Texas Utah	E2 E1 E2 E1	101 104 174 655 56	27 16 53 158 12	4.3 1.5 7.8 25.5 1.3	71.3 19.3 129.1 484.7 24.0	1.4 .6 2.5 8.7 .5	2.5 1.1 4.7 16.0 1.0	18.7 7.2 42.1 151.6 9.6	201.8 51.0 393.3 1 335.8 19.9	59.0 13.1 105.3 499.3 44.4	260.7 64.1 498.6 1 835.1 64.3	30.9 1.8 (D) 78.0 7.0	3.8 1.3 7.7 25.7 2.3	122.4 36.9 245.8 982.1 112.1
Vermont	E1 E2 E1 E1	52 184 198 77 235 48	12 64 52 21 74 12	1.1 10.9 9.5 2.6 11.2	17.2 218.7 208.2 39.6 165.5 11.7	.5 3.3 3.3 1.4 3.2 .3	.8 6.0 6.3 2.4 5.5	6.8 53.4 80.7 22.2 53.2 3.8	52.8 668.5 493.7 106.7 420.7 27.0	12.6 206.4 128.5 32.9 128.0 7.9	65.4 875.0 622.3 139.6 548.5 34.9	1.5 38.8 22.8 4.8 12.5 .6	1.0 7.0 8.9 2.7 9.7 1.0	30.3 241.0 335.9 82.7 294.1 29.0
INDUSTRY 2721, PERIODICALS														
United States Alabama Arizona Arkansas California Colorado	E2 E1 E5 E3 E3 E2	4 020 41 63 14 561 71	876 9 5 4 115 11	110.0 .9 BB BB 9.0	2 982.7 18.2 (D) (D) 255.4 16.1	18.3 .1 (D) (D) 1.7	32.4 .2 (D) (D) 3.1 .2	358.2 1.5 (D) (D) 36.8 2.1	11 452.1 128.2 (D) (D) 888.8 61.1	5 872.7 49.4 (D) (D) 485.1 29.9	17 329.2 177.5 (D) (D) 1 372.0 90.8	246.4 1.8 (D) (D) 11.4 2.0	94.0 BB (NA) (NA) 7.4 .8	6 910.9 (D) (NA) (NA) 523.9 42.5
Connecticut. District of Columbia Florida Georgia Hawaii	E2 E3 E3 E2	110 73 213 77 17	27 25 28 17 3	2.1 5.0 3.0 1.6 AA	56.2 154.7 61.6 34.7 (D)	.4 .5 .6 .3 (D)	.7 .8 1.1 .6 (D)	7.3 9.2 9.3 5.1 (D)	213.5 563.6 182.9 115.3 (D)	111.8 297.4 108.5 51.0 (D)	323.8 850.4 290.7 167.7 (D)	4.1 21.3 4.6 1.9 (D)	1.6 3.2 1.8 .8	102.9 290.9 102.4 40.5 6.8
Idaho	E2 E3 E2	16 246 50 30 43	2 55 12 8 8	BB 12.0 CC FF CC	(D) 288.1 (D) (D) (D)	(D) 2.5 (D) (D) (D)	(D) 4.5 (D) (D) (D)	(D) 60.9 (D) (D) (D)	(D) 877.1 (D) (D) (D)	(D) 421.7 (D) (D) (D)	(D) 1 295.7 (D) (D) (D)	(D) 18.2 (D) (D) (D)	(NA) 10.7 .8 EE BB	(NA) 612.4 24.6 (D) (D)
Kentucky	E4 E1	36 34 23 87 154	3 4 4 16 39	BB .3 .2 1.9 3.6	(D) 5.1 4.3 40.8 97.9	(D) .1 (Z) .3 .5	(D) .2 (Z) .5 1.0	(D) 1.6 .2 6.2 9.5	(D) 14.5 14.4 136.1 350.4	(D) 7.3 7.0 67.8 146.5	(D) 20.8 21.9 203.8 495.7	(D) .2 .3 4.9 5.4	.3 .2 (NA) .8 2.8	12.1 9.0 (NA) 41.8 171.8
Michigan	E4 E2 E1 E1 E1	95 85 62 18 35	13 18 13 3 7	1.4 2.7 2.4 AA .9	33.1 57.2 46.9 (D) 23.1	.3 .7 (D) .1	.5 .5 1.4 (D) .2	5.0 4.7 11.8 (D) 1.6	88.4 195.1 123.0 (D) 88.1	48.1 74.2 47.3 (D) 44.1	137.4 269.8 169.6 (D) 132.1	(D) (D) 1.9 (D) 4.1	1.1 1.6 2.1 (NA) .5	51.5 84.8 89.0 (NA) 31.6
New Jersey	E1	144 608 59 93 32	35 220 7 32 5	3.4 33.3 CC 3.5 .8	87.2 1 146.2 (D) 82.2 20.3	.6 3.9 (D) .8	.9 6.7 (D) 1.5	9.5 84.0 (D) 14.1 1.7	285.5 5 012.2 (D) 278.1 59.9	149.5 2 574.4 (D) 109.3 28.1	435.5 7 582.0 (D) 388.6 88.3	(D) 120.6 (D) (D) 1.3	2.5 34.8 .4 3.1 CC	130.6 3 268.8 24.7 189.9 (D)

Table 2. Industry Statistics for Selected States: 1987 and 1982—Con.

Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix 1987													ixes]	
														1982
Industry and geographic area	Ε¹	Total (no.)	With 20 employ- ees or more (no.)	All em Number² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufac- ture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expend- itures (million dollars)	All employ- ees ² (1,000)	Value added by manufac- ture (million dollars)
INDUSTRY 2721, PERIODICALS—Con.										,				
Oregon Pennsylvania Tennessee Texas Utah Vermont	E4 E1 E3 E5 E2	37 138 46 204 13	4 37 8 29 2	.4 6.8 CC 2.5 AA	7.9 155.3 (D) 58.1 (D) 4.1	.1 1.2 (D) .6 (D) (Z)	.3 2.2 (D) 1.2 (D)	1.6 23.4 (D) 12.0 (D)	21.8 795.9 (D) 170.3 (D)	10.8 491.0 (D) 81.8 (D) 8.4	32.5 1 280.4 (D) 252.2 (D) 23.2	1.4 6.7 (D) 3.6 (D) (D)	.2 4.5 2.5 2.2 (NA)	6.5 408.4 78.9 125.3 (NA)
Virginia	E3 E6 E2	102 77 83	11 10 14	1.0 .6 1.3	24.5 13.3 28.0	.2 .2 .3	.4 .3 .6	4.3 3.3 5.5	67.5 38.0 90.5	26.2 17.2 37.2	93.5 55.5 128.0	1.6 .5 (D)	.9 .5 .9	30.8 29.9 49.5
INDUSTRY 2731, BOOK PUBLISHING														
United States		2 298	424	70.1	1 859.8	15.9	28.7	306.1	9 110.7	3 663.2	12 619.5	239.7	67.1	5 291.5
Arizona Arkansas California Colorado Connecticut	E6 E1 E2 E2 E3	30 12 375 45 56	3 2 61 5 11	88 88 6.2 1.0 2.3	(D) (D) 164.3 18.5 49.0	(D) (D) 1.3 .5 .2	(D) (D) 2.3 .9 .3	(D) (D) 24.1 9.0 3.5	(D) (D) 537.5 83.0 99.2	(D) (D) 226.7 13.3 45.9	(D) (D) 754.9 96.2 144.5	(D) (D) 16.9 (D) 1.2	AA (NA) 5.3 .6 1.3	(D) (NA) 303.9 36.6 65.5
Indiana lowa	E2 E8 E1	86 26 135 32 15	7 5 38 6 4	.9 .6 6.1 CC 88	21.2 15.2 171.0 (D) (D)	.4 .2 .5 (D) (D)	.7 .3 .9 (D) (D)	7.3 3.7 8.2 (D) (D)	74.9 51.7 893.9 (D) (D)	17.1 18.3 276.6 (D) (D)	91.7 70.0 1 149.8 (D) (D)	1.8 .6 53.9 (D) (D)	.6 .6 6.6 CC BB	30.7 17.5 656.5 (D)
Kentucky Maine Maryland Massachusetts Michigan	E5 E6 E5 E1	14 17 55 91 34	6 2 8 20 11	AA AA .8 4.1 1.0	(D) (D) 13.2 109.0 21.9	(D) (D) 2 .5 .2	(D) (D) .2 .9 .3	(D) (D) 2.3 8.3 2.8	(D) (D) 45.8 64 7 .6 72.6	(D) (D) 15.6 229.9 29.1	(D) (D) 61.4 873.4 99.4	(D) (D) 9.9 (D)	(NA) (NA) .6 4.4 .4	(NA) (NA) 17.2 392.4 27.0
Minnesota Missouri New Hampshire New Jersey New York	- E5 -	38 40 19 112 398	8 6 2 29 101	FF 1.3 AA 4.5 21.0	(D) 29.0 (D) 116.2 628.1	(D) .2 (D) 1.1 2.5	(D) .4 (D) 1.7 4.6	(D) 4.0 (D) 13.5 54.1	(D) 105.3 (D) 545.0 4 195.2	(D) 50.9 (D) 186.9 1 7 92.2	(D) 156.1 (D) 701.7 5 923.4	(D) 2.4 (D) 9.1 71.9	3.9 1.0 (NA) 4.9 21.9	165.6 49.6 (NA) 278.7 2 309.4
North Carolina Ohio Oregon Pennsylvania Tennessee	E2 E2 E1 E1	31 51 37 69 47	3 9 3 18 9	88 FF .3 1.8 2.5	(D) (D) 5.7 44.6 59.7	(D) (D) .1 .7 .6	(D) (D) .1 1.2 1.0	(D) (D) 1.3 13.1 8.1	(D) (D) 18.3 134.6 191.9	(D) (D) 10.5 65.0 68.5	(D) (D) 28.5 204.4 267.7	(D) (D) (D) 1.8 (D)	.4 4.1 AA 2.5 .9	17.2 272.8 (D) 147.1 42.0
Texas	E1 E9 E5	100 22 39 48 36	11 2 4 3 9	1.5 .2 1.0 .3 1.3	36.2 2.9 28.4 5.8 30.9	.3 (Z) .4 .1 .8	.5 (Z) .6 .2 1. 7	5.3 .4 6.3 1.8 16.3	171.7 31.1 158.0 14.1 110.6	76.2 10.5 50.8 7.1 91.9	235.8 41.0 203.8 21.1 200.0	(D) .1 (D) .4 (D)	1.2 (NA) 1.1 .2 1.3	61.3 (NA) 159.5 10.8 33.0
INDUSTRY 2732, BOOK PRINTING														
United States		561	269	43.5	961.4	34.4	67.7	6 75. 6	1 996.5	1 269.3	3 256.3	154.4	44.7	1 429.9
California	E4 E3 E2	58 12 8 15 16	21 5 5 3 8	2.0 .3 .3 .2 .4	48.2 6.4 7.4 3.5 8.6	1.5 .2 .2 .2 .4	3.1 .4 .4 .3 .7	32.5 3.7 4.9 2.2 6.6	99.9 12.8 11.7 9.8 15.2	54.8 7.8 9.9 4.8 14.6	154.7 20.4 21.4 14.7 29.8	3.4 (D) .9 .4	2.1 .2 .3 .6 .3	95.0 7.2 9.8 17.2 13.8
IllinoisIndiana	E1 - - -	29 12 4 8 6	16 5 4 7 4	1.8 FF 88 EE EE	43.0 (D) (D) (D)	1.2 (D) (D) (D) (D)	2.4 (D) (D) (D) (D)	27.6 (D) (D) (D) (D)	86.5 (D) (D) (D) (D)	50.8 (D) (D) (D) (D)	137.4 (D) (D) (D) (D)	4.0 (D) (D) (D) (D)	1.4 FF AA EE 1.2	46.0 (D) (D) (D) 30.4
Maryland	E2 E1 E1	21 32 23 9 14	13 19 14 5 8	1.6 3.3 2.2 88 1.7	37.4 81.4 49.5 (D) 34.8	1.2 2.6 1.8 (D) 1.4	2.5 5.2 3.5 (D) 2.4	24.4 58.2 33.2 (D) 24.3	69.1 147.0 92.7 (D) 82.5	55.4 82.8 65.2 (D) 45.1	124.5 229.9 157.5 (D) 125.1	(D) 8.0 (D) (D) 2.6	1.3 3.1 1.8 (NA) 1.5	40.4 78.7 62.4 (NA) 51.3
New Jersey	E2 E3 E2	28 83 12 19 37	16 30 8 5 22	.7 2.7 EE EE 5.0	17.3 63.4 (D) (D) 105.2	.5 2.2 (D) (D) 4.1	1.1 4.2 (D) (D) 8.0	11.3 47.2 (D) (D) 78.4	34.1 114.5 (D) (D) 227.6	19.0 74.1 (D) (D) 126.5	52.8 188.3 (D) (D) 355.4	3.4 6.5 (D) (D) 19.8	1.4 4.4 1.0 2.0 4.7	45.6 128.1 26.5 84.4 151.6
Rhode Island Tennessee Tevas Utah Vermont Virginia Wisconsin	E8 - - - E1	2 8 23 7 3 13	2 5 9 4 3 10	AA 3.5 1.8 .4 CC 1.9 2.5	(D) 74.1 41.0 5.9 (D) 37.7 69.4	(D) 3.0 1.4 .3 (D) 1.5	(D) 6.3 2.9 .5 (D) 2.9 4.2	(D) 57.8 22.7 4.0 (D) 26.8 49.1	(D) 157.7 81.0 16.0 (D) 82.6 142.7	(D) 87.1 33.8 13.9 (D) 69.3 148.7	(D) 243.2 113.4 30.1 (D) 151.7 291.7	(D) (D) (D) 5.4 (D) (D) (D)	(NA) 4.3 2.6 (NA) .9 1.5 2.3	(NA) 116.1 69.0 (NA) 21.6 46.3 96.0

Table 2. Industry Statistics for Selected States: 1987 and 1982—Con.

[Excludes data for auxiliaries. States with 150 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

(EXCIDOS DATA TOT ADMINISTES. CIATO.					1982									
Industry and geographic area		All estab	With 20 employ-	All em	ployees	Pro	duction wo		Value added by manufac-	Cost of	Value of	New capital expend-	All	Value added by manufac-
	E¹	Total (no.)	ees or more (no.)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	ture (million dollars)	materials (million dollars)	shipments (million dollars)	itures (million dollars)	employ- ees ² (1,000)	ture (million dollars)
INDUSTRY 2741, MISCELLANEOUS PUBLISHING														
United States	E2	2 369	597	69.4	1 513.2	24.1	44.1	365.2	6 022.9	1 791.0	7 809.5	133.0	45.3	1 958.2
Alabama Arizona Arkansas California Colorado	E1 E3 E1 E3	17 22 10 331 51	3 3 5 72 12	BB BB .8 8.3 3.6	(D) (D) 9.7 190.7 87.0	(D) (D) .5 3.5 1.5	(D) (D) .8 5.8 3.8	(D) (D) 5.1 50.2 29.9	(D) (D) 29.7 1 170.3 313.0	(D) (D) 17.6 243.5 58.6	(D) (D) 47.7 1 394.9 370.0	(D) (D) (D) 14.8 9.3	(NA) .2 CC 5.4 1.8	(NA) 4.9 (D) 210.6 120.2
Connecticut	E2 E3 E2 E7 E2	48 30 128 37 17	11 7 36 10 3	1.9 .4 3.2 EE AA	44.3 12.8 52.2 (D) (D)	.3 .1 1.3 (D) (D)	.5 .2 2.5 (D) (D)	5.4 1.4 17.6 (D) (D)	104.2 36.3 120.5 (D) (D)	30.8 15.3 43.5 (D) (D)	134.5 51.6 163.3 (D) (D)	1.4 .7 3.9 (D) (D)	1.1 .9 2.1 .6 (NA)	44.5 68.2 64.6 17.7 (NA)
Illinois	E1 E9 E2 - E1	121 44 39 26 25	42 9 10 11 10	3.5 1.5 .7 1.4 CC	74.8 25.7 9.8 29.7 (D)	1.1 .6 .3 .7 (D)	1.8 1.3 .4 1.6 (D)	19.8 8.5 2.7 11.7 (D)	368.9 79.3 27.4 277.0 (D)	184.0 34.2 9.2 63.1 (D)	572.7 113.5 36.6 340.1 (D)	3.4 1.6 2.9 (D) (D)	2.7 CC CC 1.5 .3	134.7 (D) (D) 91.1 11.2
Louislana Maryland Massachusetts Michigan Minnesota	E1 E3 E7 E1	19 44 61 90 59	3 15 18 40 19	.2 1.5 3.4 5.1 1.5	3.0 34.5 102.3 92.3 29.8	.1 .6 1.0 1.7	.2 .9 1.9 3.1 1.1	1.1 8.3 14.5 26.0 9.5	29.2 84.0 632.0 297.6 107.6	5.2 30.2 120.2 107.5 42.0	34.3 114.2 750.8 404.2 148.3	(D) 2.9 7.5 (D) 1.7	(NA) CC .6 2.4 1.1	(NA) (D) 22.6 115.5 42.1
Missouri	E3 E1 E1 E2 E1	43 16 72 323 34	12 7 21 73 8	.9 EE 3.9 9.4 CC	16.4 (D) 104.1 251.8 (D)	.3 (D) .9 2.2 (D)	.5 (D) 1.8 4.0 (D)	4.3 (D) 17.8 35.7 (D)	46.2 (D) 183.1 882.0 (D)	17.5 (D) 56.9 263.4 (D)	63.9 (D) 240.8 1 146.5 (D)	.5 (D) 5.3 28.6 (D)	CC .4 1.8 9.6 .5	(D) 11.2 76.1 432.3 18.5
Ohio	E5 E3 - E1 E5	61 18 22 90 71	24 1 6 23 10	2.6 .2 .6 2.5 .8	47.8 3.3 15.3 50.0 13.5	1.0 .1 .3 .9	1.7 .1 .6 1.7 .4	12.7 .8 6.3 16.0 3.0	138.6 6.4 66.3 171.8 38.7	110.9 4.1 12.1 63.0 18.0	249.9 10.5 78.4 235.3 56.2	3.9 (D) (D) 6.3 (D)	1.2 .2 AA EE CC	31.4 6.7 (D) (D) (D)
Texas	E2 E1 E1 E4 - E4	134 15 8 48 34 52	22 3 3 12 3 18	2.4 .3 .3 1.1 .4 1.2	45.8 4.5 4.2 26.5 10.6 13.4	.8 .1 .2 .2 .1 .6	1.5 .2 .3 .4 .2	12.9 1.6 2.4 4.4 2.1 5.5	119.4 16.0 7.8 71.3 102.4 35.6	49.7 6.2 2.7 26.0 14.1 16.0	166.9 22.0 10.8 96.8 116.6 51.5	3.0 (D) (D) (D) .9 1.6	EE (NA) (NA) 1.0 .3	(D) (NA) (NA) 45.5 8.5 18.6

Note: For qualifications of data, see footnotes on table 1a.

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other Government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate the items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown for those States where estimated value of shipments data based on administrative-record data account for 10 percent or more of figure shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

*Statistics for some producing States have been withheld to avoid disclosing data for individual companies. However, for States with 150 employees or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: AA—150 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 3a. Summary Statistics for the Industry: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Newspapers (SIC 2711)			Periodicals (SIC 2721)	
ltem	Total	Daily (SIC 2711- 11)	Weekly and others (SIC 2711- 13)	Total	Publishing only (SIC 2721- 11)	Publishing and printing (SIC 2721- 13)
Companies number All establishments do With 1 to 19 employees do With 20 to 99 employees do With 100 employees or more do	7 465	(NA)	(NA)	3 757	(NA)	(NA)
	9 091	1 473	7 618	4 020	3 609	411
	6 474	94	6 380	3 144	2 858	286
	1 875	751	1 124	692	598	94
	742	628	114	184	153	31
Employment and labor costs: 1,000. Employees 1,000. Compensation, total mil dol. Annual payroll do. Fringe benefits do. Social Security and other legally required payments do. Employer payments and other programs do.	434.6	326.5	108.1	110.0	93.0	16.9
	10 774.9	8 692.7	2 082.3	3 533.2	3 039.7	493.4
	9 025.0	7 261.2	1 763.7	2 982.7	2 574.2	408.5
	1 750.0	1 431.4	318.5	550.5	465.6	84.9
	772.2	626.5	145.7	219.3	187.0	32.3
	977.8	805.0	172.8	331.2	278.6	52.6

Table 3a. Summary Statistics for the Industry: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

For meaning of abbreviations and symbols, see introductory text. For explanation of	r terms, see apper	Newspaper	rs			Periodicals	
		(SIC 2711				(SIC 2721)	
ltem	Tota	(SIC 27	Daily	others C 2711- 13)	Total	Publishing only (SIC 2721– 11)	Publishing and printing (SIC 2721- 13)
Production workers: 1,000 Average for year 1,000 March do. August do. November do.	148.5 147.5 147.6 147.6 150.3	3 10 5 10 2 10	06.0 05.1 05.3 04.7	42.5 42.2 42.3 42.5 42.8	18.3 18.1 18.3 18.2 18.3	12.6 12.5 12.6 12.6 12.7	5.7 5.6 5.7 5.6 5.6
Hours	262.6 64.6 65.3 65.3 67.7	3 4	88.7 46.0 46.9 46.8 49.0	73.9 18.4 18.4 18.4 18.7	32.4 8.1 8.1 8.1 8.2	22.3 5.6 5.5 5.5 5.7	10.1 2.5 2.5 2.5 2.5 2.5
Wagesmil dol Value added by manufacturedo	2 986.7 24 310.7			659.7 4 269.0	358.2 11 452.1	248.2 10 495.5	110.0 956.6
Cost of materials¹ do. Materials, parts, containers, etc., consumed² do. Resales do. Fuels do.	7 533.4 6 570.4 43.5 40.1	6 04	44.2 56.3 26.5 30.7	1 489.2 1 114.1 17.0 9.4	5 872.7 2 225.7 97.0 6.1	5 517.6 1 979.8 86.8 3.7	355.1 245.9 10.1 2.3
Purchased electricitydo Contract workdo Quantity of electric energy used for heat and power:	194.7 684.7		62.3 68.3	32.4 316.3	31.6 3 512.3	23.7 3 423.5	7.9 88.8
Purchased mil kWh_ Generated less sold do_	3 357.0 (S		42.9 (S)	614.1 (S)	471.2 (S)	357.3 (S)	114.0
Total value of shipments	31 849.2 30 493.9 1 037.0 318.4 61.4 (D	25 1: 7: 1 26		5 756.9 5 381.2 325.3 50.4 30.5 (D)	17 329.2 15 793.1 769.2 766.8 196.4 51.6 518.8	16 019.7 14 709.0 664.8 645.9 181.6 43.8 420.4	1 309.4 1 084.1 104.4 120.9 14.8 7.8 98.4
Inventories by stage of fabrication: Beginning of 1987	777.9 26.3 9.4 742.2		26.0 19.4 5.9 00.7	151.9 6.9 3.5 141.5	896.0 409.4 125.2 361.4	785.4 350.1 106.9 328.3	110.6 59.3 18.2 33.1
End of 1987 do. Finished goods do. Work in process do. Materials and supplies do.	857.1 21.7 8.8 826.7		95.9 14.4 4.4 77.1	161.3 7.3 4.4 149.5	901.9 393.9 136.3 371.8	789.8 333.0 117.5 339.4	112.1 60.9 18.8 32.4
Primary product specialization ratiopercent Coverage ratiodo	97 100		NA) NA)	(NA) (NA)	95 96	(AA) (AA)	(NA) (NA)
	B	look publishing (SIC 2731)				Miscellaneous pul (SIC 2741)	olishing
Item	Total	Publishing only (SIC 2731- 11)	Publishing and printing (SIC 2731- 13)			Publishin onl (SIC 2741 otal	y printing - (SIC 2741-
Companiesnumber_	2 180	(NA)	(NA)	52	20 2	136 (NA	(NA)
All establishments do_ With 1 to 19 employees do_ With 20 to 99 employees do_ With 100 employees or more do_	2 298 1 874 297 127	2 009 1 650 258 101	289 224 39 26	56 29 17 9	2 1	369 2 19 772 1 71 461 38 136 9	1 61 8 73
Employment and labor costs: Employees	70.1 2 191.1 1 859.8 331.3 140.3 191.0	55.1 1 731.1 1 466.7 264.4 110.5 153.8	15.0 460.0 393.0 66.9 29.8 37.2	43. 1 160. 961. 199. 91.	5 1 8 4 1 5 1 29 1 12		9 349.3 5 292.7 4 56.6 3 25.8
Production workers: 1,000_ Average for year do_ March do_ May do_ August do_ November do_	15.9 15.7 15.7 16.0 16.2	8.4 8.3 8.3 8.3 8.7	7.5 7.4 7.4 7.6 7.5	34. 34. 34. 34. 33.	7 6 0	24.1 15. 24.0 15. 24.2 15. 24.0 15. 24.1 15.	8.5 8.5 8.4
Hours	28.7 7.0 7.0 7.4 7.4	15.0 3.7 3.7 3.8 3.9	13.7 3.3 3.3 3.6 3.6	67. 16. 17. 16. 16.	8 1	44.1 28. 10.9 7. 11.1 7. 10.9 7. 11.1 7.	3.8 2 3.9 2 3.7
Wagesmil dol_	306.1	144.4	161.7	675. 1 996.		55.2 240.9 22.9 5 123.3	
Value added by manufacture	9 110.7 3 663.2 1 234.2 125.0	8 092.4 3 269.8 969.9 108.8	1 018.3 393.4 264.2 16.2	1 269. 1 090. 16.	3 1 79 1 60 1 3	91.0 1 537.0 99.2 427.3 37.6 30.	253.4 181.9 7.5
Fuels	10.9 20.8 2 272.2	9.2 13.7 2 168.1	1.8 7.1 104.2	11. 36. 114.	8 1	18.4 12.3	6.0
Ouantity of electric energy used for heat and power: Purchased mil kWh Generated less sold do	321.4	200.9	120.6	675.	8 31	216.0	98.0

Table 3a. Summary Statistics for the Industry: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

		Book publishing (SIC 2731)			Mise	cellaneous public (SIC 2741)	shing
Item	Total	Publishing only (SIC 2731- 11)	Publishing and printing (SIC 2731- 13)	Book printing (SIC 2732)	Total	Publishing only (SIC 2741- 11)	Publishing and printing (SIC 2741- 13)
Total value of shipments mil dol Primary products do Secondary products do Miscellaneous receipts, total do Value of resales do Contract receipts do Other miscellaneous receipts do	12 619.5 11 010.8 1 011.6 597.2 277.2 17.2 302.8	11 216.1 9 837.9 938.1 440.1 254.7 6.7 178.7	1 403.4 1 172.8 73.4 157.2 22.5 10.6 124.1	3 256.3 2 866.8 354.0 35.5 21.5 (D)	7 809.5 7 419.0 147.3 243.3 54.7 1.8 186.8	6 639.5 6 339.8 89.5 210.2 44.0 (D)	1 170.0 1 079.2 57.8 33.1 10.7 (D)
Inventories by stage of fabrication: Beginning of 1987 mil dol Finished goods do Work in process do Materials and supplies do	1 921.1	1 709.2	211.9	286.4	459.7	372.7	87.0
	1 432.5	1 300.1	132.5	32.8	288.7	246.6	42.1
	295.7	246.7	49.1	125.3	79.6	57.6	22.0
	192.8	162.5	30.3	128.3	91.5	68.5	22.9
End of 1987	2 090.9	1 867.9	222.9	297.0	467.9	393.8	74.1
	1 574.6	1 436.2	138.4	30.7	302.8	269.0	33.8
	308.0	256.6	51.4	136.9	69.8	56.6	13.2
	208.3	175.2	33.1	129.4	95.3	68.2	27.1
Primary product specialization ratiopercent	92	(NA)	(NA)	89	98	(NA)	(NA)
Coverage ratiodo	95	(NA)	(NA)	88	91	(NA)	(NA)

Note: For qualifications of data, see footnotes on table 1a.

Table 3b. Gross Book Value of Depreciable Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments: 1987

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Newspapers (SIC 2711)	Periodicals (SIC 2721)	Book publishing (SIC 2731)	Book printing (SIC 2732)	Miscellaneous publishing (SIC 2741)
Gross book value of depreciable assets:					
Total:					
Beginning of year	12 785.1	2 331.3	1 482.5	1 399.3	1 001.9
New capital expenditures ¹	1 522.7	246.4	239.7	154.4	133.0
Osed capital expenditures	65.3	69.7	45.0	19.2	12.2
Heurements	344.8	119.2	86.8	38.9	50.4
End of year	14 028.2	2 528.2	1 680.4	1 534.1	1 096.7
Buildings and other structures:					
Beginning of year	3 879.9	1 121.6	591.7	315.6	328.4
New capital expenditures	343.7	74.1	47.4	18.4	24.4
Used capital expenditures	19.6	59.6	34.0	4.4	3.5
Retirements	37.2	59.3	22.1	2.3	25.5
End of year Machinery and equipment:	4 206.1	1 196.0	651.0	336.1	330.8
	8 905.1	1 209.8	890.9	1 083.6	673.5
Beginning of year	1 178.9	172.2	192.3	136.0	108.6
Used capital expenditures	45.7	10.0	11.0	14.9	8.6
Retirements	307.7	59.9	64.7	36.5	24.9
End of year	9 822.1	1 332.1	1 029.4	1 198.0	765.8
	0 022	1 552.1	1 020.4		700.0
Depreciation charges during 1987;					
Total	962.1	204.8	144.7	129.4	118.4
Buildings and other structures	167.8	48.9	35.8	16.7	17.0
Machinery and equipment	794.3	155.9	109.0	112.7	101.4
,	754.6	100.0	100.0	112.7	101.4
Rental payments:					
	234.5	288.2	1407	20.0	00.7
Total	107.3	288.2	142.7 81.2	30.2	92.7
Buildings and other structures	127.2	85.4	81.2 61.5	13.6	58.1
tradition and equipment	121.2	65.4	01.5	16.7	34.6

Note: Retirements and depreciation data for establishments not included in the ASM sample were extrapolated from the historical ratio of retirements or depreciation to assets. These ratios were developed at the industry level.

¹Data on purchased services for the repair of buildings and machinery and for communication services are not included in cost of materials, etc., but are shown in table 3c. ²Data on materials consumed by type are shown in table 7. Data on amount purchased or transferred from foreign sources are shown in table 3c.

¹Data on new machinery and equipment expenditures by type are provided in table 3c.

Table 3c. Supplemental Industry Statistics Based on Sample Estimates: 1987

[For meaning of abbreviations end symbols, see introductory text. For explenation of terms, see appendixes]

		oepers 2711)	Perio (SIC	dicels 2721)		ublishing 2731)		orinting 2732)		us publishing 2741)
ltem	Amount (million dollers)	Relative stenderd error of estimete ¹ (percent)	Amount (million dollars)	Reletive stendard error of estimete ¹ (percent)	Amount (million dollers)	Relative stenderd error of estimete ¹ (percent)	Amount (million dollars)	Reletive standerd error of estimete ¹ (percent)	Amount (million dollers)	Relative stenderd error of estimete ¹ (percent)
Purchased services: Cost of purchased services for the repair of- Buildings end other structures Response coverage ratio (percent) ² Mechinery Response coverage ratio (percent) ² Cost of purchased communication services Response coverage ratio (percent) ²	53.8 65.8 124.6 67.4 104.7 65.6	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	10.3 44.7 19.9 46.0 45.0 44.7	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	11.7 63.2 13.7 64.5 34.8 62.9	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	8.8 82.2 29.1 81.7 7.8 80.7	888888	(S) (S) (S) (S) (S)	(X) (X) (X) (X) (X) (X)
New machinery and equipment expenditures Automobiles, trucks, etc., for highway use	1 178.9 56.0 210.1 912.8 1.2	(X) 3 3 1 (X)	172.2 4.6 73.8 93.8 1.6	(X) 11 5 5 (X)	192.3 2.2 81.0 109.1 1.0	(X) 15 15 12 (X)	136.0 1.4 6.5 128.1 1.2	(X) 22 14 1 (X)	108.6 1.5 70.3 36.8 1.4	(X) 49 21 38 (X)
Cost of materials, components, parts, etc., used	6 570.4 2 249.7 4 320.7 1.3	(X) 2 1 (X)	2 225.7 29.2 2 196.6 2.0	(X) 33 1 (X)	1 234.2 31.0 1 203.2 1.4	(X) 6 1 (X)	1 090.1 11.0 1 079.1 1.3	(X) 16 1 (X)	609.2 (S) (S) (S)	(X) 42 3 (X)

Table 4. Industry Statistics by Employment Size of Establishment: 1987

[For meaning of abbreviations and symbols, see intr	roduct	ory text. F	or explanati	on of terms,	see append	dixes]						
		All	All em	ployees	Pro	duction wo	rkers	Value added by			New capital	End-of-
Industry and employment size class	E¹	estab- lish- ments (no.)	Number (1,000)	Payroll (million dollers)	Number (1,000)	Hours (millions)	Wages (million dollars)	manufac- ture (million dollars)	Cost of materials (million dollers)	Value of shipments (million dollars)	expend- itures (million dollars)	yeer inven- tories (million dollars)
INDUSTRY 2711, NEWSPAPERS									-			
Total	E1	9 091	434.6	9 025.0	148.5	262.6	2 986.7	24 310.7	7 53 3. 4	31 849.2	1 522.7	857.1
Establishments with an average of— 1 to 4 employees	E8 E4 E2 E1 E1 E1	3 146 1 842 1 486 1 301 574 443 158 73 55 13	5.9 12.4 20.2 40.7 40.1 67.9 53.6 52.1 84.9 58.8	84.0 160.5 281.4 800.4 612.1 1 224.5 1 041.3 1 189.7 2 259.0 1 572.0	1.8 4.4 8.1 16.7 14.9 24.4 16.9 17.8 27.6 18.0	4.2 8.2 14.4 28.5 25.9 43.0 28.6 31.2 50.5	27.4 53.5 104.7 222.2 200.9 394.1 312.6 384.2 768.5 511.7	238.1 419.8 686.5 1 586.5 1 860.6 3 361.8 2 799.5 3 165.6 5 589.9 4 822.5	69.6 123.4 214.7 448.7 470.3 995.5 777.8 1 004.8 2 191.8 1 236.9	307.6 543.1 901.1 2 014.7 2 330.5 4 357.2 3 576.8 4 169.0 7 787.6 5 861.7	7.9 13.9 26.0 52.4 62.5 172.1 160.5 245.2 461.1 321.2	10.3 12.3 23.0 56.4 63.1 118.4 98.1 117.3 223.3 134.9
INDUSTRY 2721, PERIODICALS		4 300	21.7	202.0	7.2	14.0	04.0	072.0	107.4	000.1	20.2	2.10
Total	E2	4 020	110.0	2 982.7	18.3	32.4	358.2	11 452.1	5 872.7	17 329.2	246.4	901.9
Establishments with an average of— 1 to 4 employees	E6 E3 E3 E2 E1 E1 E2	1 799 759 588 507 185 113 44 12 13 2	3.2 5.1 8.1 15.8 12.7 16.9 14.5 8.6 25.2 (D)	65.2 104.9 187.6 397.3 329.4 449.2 431.4 238.4 779.3 (D)	.4 1.1 2.0 3.3 2.7 2.9 2.5 1.2 2.2 (D)	1.2 2.0 3.3 5.7 4.6 5.0 4.4 2.3 3.8 (D)	10.5 19.5 36.0 64.3 49.6 47.7 47.4 33.8 49.5 (D)	262.6 362.6 588.1 1 369.8 1 126.2 1 717.6 1 471.3 1 109.2 3 444.9 (D)	151.3 204.4 337.5 701.4 584.6 859.3 766.1 561.6 1 706.6	413.9 567.1 925.2 2 071.2 1 708.2 2 574.4 2 237.5 1 666.1 5 165.7 (D)	3.2 5.5 9.5 22.2 21.6 32.5 35.6 24.7 91.5	16.3 23.1 39.5 91.0 74.2 147.7 120.1 66.7 323.4 (D)
Covered by administrative records ²	E9	2 114	6.9	114.2	1.1	2.5	19.0	428.4	243.9	672.3	5.4	27.4

¹For description of relative standard error of estimate, see Qualifications of the Data in appendixes.
²Measure of extent to which respondents reported each item. Derived for each item by calculating the ratio of weighted employment for those sample establishments that reported the specific inquiry to total employment for all establishments clessified in industry. (See eppendixes for explanation of sample weight.)
³Detail has been adjusted upwards to eccount for nonresponse. Inverse of the ratio shown represents a measure of the response to the inquiry. (See appendixes for further explanation.)
⁴Data may understate the true cost of imported parts, components, and supplies since some respondents do not know the origin of these materials. Includes cases where materials were purchased from secondary suppliers or where they were trensferred from compeny-operated werehouses or other distribution points. Direct purchases from foreign suppliers and importers by domestic manufacturing establishments are believed to be reported accurately.

Table 4. Industry Statistics by Employment Size of Establishment: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

If of filedilling of abbreviations and symbols, see the	1	Ory toxt, 1	or explanae	011 01 1011110,	осс арропа	11400]		1				
			All em	ployees	Pro	duction wo	rkers	Value			New	End-of-
Industry and employment size class	E¹	All estab- lish- ments (no.)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	added by manufac- ture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	capital expend- itures (million dollars)	year Inven- tories (million dollars)
INDUSTRY 2731, BOOK PUBLISHING												
Total	E1	2 298	70.1	1 859.8	15.9	28.7	306.1	9 110.7	3 663.2	12 619.5	239.7	2 090.9
Establishments with an average of— 1 to 4 employees	E6 E3 E3 E1 E1	1 236 368 270 194 103 62 40 14	2.1 2.4 3.7 6.1 7.2 8.6 13.7 9.2 17.1 (D)	37.9 44.8 80.1 138.1 169.5 218.9 379.1 270.6 522.7 (D)	.4 .6 1.2 1.6 1.7 1.9 2.1 1.7 4.7 (D)	.9 1.1 2.4 2.7 2.9 3.7 4.0 3.0 8.0	8.4 9.3 20.1 24.4 27.7 33.3 43.3 29.6 110.0 (D)	157.5 172.8 279.8 279.8 597.9 806.1 972.4 2 107.1 1 876.1 2 141.0	68.5 72.1 140.0 257.8 441.2 409.3 823.5 584.1 866.6	225.8 244.3 417.5 839.7 1 238.4 1 343.5 2 895.7 2 421.5 2 993.1	2.2 2.8 4.9 12.1 10.2 22.2 37.6 66.0 81.7	37.1 41.5 79.1 153.4 218.3 266.7 482.5 501.6 310.7 (D)
Covered by administrative records ²	1	1 373	3.9	56.6	.9	1.6	12.0	237.4	97.4	334.9	3.2	53.7
INDUSTRY 2732, BOOK PRINTING												
Total	E1	561	43.5	961.4	34.4	87.7	675.6	1 996.5	1 269.3	3 256 .3	154.4	297.0
Establishments with an average of— 1 to 4 employees	E9 E8 E5 E2 E1	107 87 98 107 65 53 24 16	.2 .6 1.4 3.4 4.5 7.9 8.7 10.4 6.4	3.9 11.1 26.4 74.8 100.5 178.7 193.5 224.0 148.6	.2 .4 1.0 2.5 3.5 6.0 6.8 8.6 5.3	.3 .9 2.0 5.1 7.2 11.5 13.5 16.3 10.8	2.7 7.1 17.4 50.3 69.8 123.7 131.4 166.2 107.1	8.3 22.1 52.7 138.1 218.6 378.6 383.6 450.6 343.9	5.5 14.2 32.1 95.8 134.5 264.2 240.7 277.5 204.9	13.9 36.3 84.8 233.2 353.6 640.4 626.4 723.9 543.8	.6 1.5 2.6 11.6 12.7 28.3 27.1 42.3 27.8	1.2 3.4 6.6 20.1 24.5 67.2 48.9 64.3 60.6
Covered by administrative records ²	E9	218	1.4	23.8	1.1	2.2	16.3	46.0	30.6	76.6	3.5	6.9
INDUSTRY 2741, MISCELLANEOUS PUBLISHING												
Total	E2	2 369	69.4	1 513.2	24.1	44.1	385.2	8 022.9	1 791.0	7 809.5	133.0	467.9
Establishments with an average of— 1 to 4 employees	E7 E4 E3 E3 E3 E3 E1 E2	1 055 395 322 311 150 81 34 17	1.9 2.6 4.4 9.7 10.3 11.4 11.8 17.3 (D)	34.5 49.9 90.7 187.2 193.4 247.7 254.2 455.5 (D)	.6 1.0 1.7 3.4 3.7 4.6 5.2 4.1	1.1 1.8 3.1 5.8 6.7 8.3 9.4 7.9	9.4 14.2 25.4 45.4 51.7 77.9 81.1 60.1 (D)	109.0 167.0 238.8 639.9 596.0 842.4 1 097.1 2 332.6 (D)	47.5 89.2 110.5 276.1 252.9 285.3 335.3 394.2 (D)	156.3 253.3 350.0 914.7 848.0 1 147.2 1 427.4 2 712.5 (D)	1.6 4.9 4.6 11.0 11.8 21.1 25.4 52.6 (D)	13.0 26.7 27.6 54.5 69.2 69.8 59.2 147.9 (D)
Covered by administrative records ²	E9	960	2.5	36.0	.8	1.3	8.5	114.4	49.1	163.5	1.7	13.1

Note: For qualifications of data, see footnotes on table 1a. Data shown as a (D) are included in underscored figures above.

1Payroll and sales data for some small single unit companies with up to 20 employees (cutoff varied by Industry) were obtained from administrative records of other Government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate the items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown for those employment-size classes where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

PReport forms were not mailed to small single unit companies with up to 20 employees (cutoff varied by industry). Payroll and sales data for 1987 were obtained from administrative records supplied by other agencies of the Federal Government. Those data were then used in conjunction with industry averages to estimate the items shown. Data are also included in respective employment-size classes shown.

Table 5a. Industry Statistics by Industry and Primary Product Class Specialization: 1987

[Table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. Measures of plant specialization shown are (1) industry specialization: ratio of primary product shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment; and (2) product class specialization: ratio of largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment. See appendix for method of computing ratios. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Indus- try or		All	All em	ployees	Pr	oduction work	ers	Value added by			New capital
prod- uct class code	Industry or primary product class	estab- lish- ments (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	manufac- ture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	expend- itures (million dollars)
2711	Newspapers: All establishments in industry	9 091	434.6	9 025.0	148.5	262.6	2 986.7	24 310.7	7 533.4	31 849.2	1 522.7
27111	Establishments with this product class primary: Daily and Sunday newspapers: receipts from										
27112	subscriptions and sales Daily and Sunday newspapers: receipts from	30	5.1	117.2	.7	1.4	13.6	348.6	142.7	491.0	29.1
	advertising	1 378	327.0	7 336.3	109.5	193.5	2 439.2	20 054.2	6 059.0	26 120.0	1 346.2
27113	Weekly and other newspapers: receipts from subscriptions and sales	107	3.1	65.4	1.1	2.0	19.1	259.3	140.5	399.6	4.0
27114	Weekly and other newspapers: receipts from	107	3.1	05.4	1.1	2.0	19.1	259.3	140.5	399.6	4.0
	advertising	1 326	39.8	621.7	16.1	26.9	217.0	1 410.0	512.0	1 921.0	51.4

Table 5a. Industry Statistics by Industry and Primary Product Class Specialization: 1987—

Table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. Measures of plant specialization shown are (1) industry specialization: ratio of primary product shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment; and (2) product class specialization: ratio of largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment. See appendix for method of computing ratios. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Indus-		All	All em	ployees	Pr	oduction worl	kers	Value			New
try or prod- uct class code	Industry or primary product class	All estab- lish- ments (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	added by manufac- ture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	capital expend- itures (million dollars)
2721	Periodicals: All establishments in industry	4 020	110.0	2 982.7	18.3	32.4	358.2	11 452.1	5 872.7	17 329.2	246.4
27211	Establishments with this product class primary: Farm periodicals: subscriptions, sales, and	41		33.6		_	5.0	405.0	55.5	400.5	10
27213	Specialized business and professional periodicals:		1.4		.3	.5	5.3	105.8	55.5	163.5	1.9
27214	subscriptions and salesSpecialized business and professional penodicals:	187	15.0	391.4	4.7	8.1	94.9	1 082.9	337.9	1 416.9	48.0
2721A	advertising General and consumer periodicals: subscriptions	376 102	23.3 9.7	656.1 261.5	3.1 1.0	5.2 1.7	61.0 26.9	2 414.2 1 346.0	937.5 866.5	3 344.4 2 195.1	56.9 17.4
2721B 2721C	General and consumer periodicals: single copy sales _	53 225	2.0 26.0	63.1 872.3	.4 2.2	.6 3.9	10.5 46.1	256.5	234.8	491.0	3.7
2721D	General and consumer periodicals: advertising Other periodicals, n.e.c	119	7.9	160.7	2.3	3.9	36.6	3 877.1 408.1	2 097.9 207.7	6 007.5 614.5	78.9 12.1
2731	Book publishing: All establishments in industry	2 298	70.1	1 859.8	15.9	28.7	306.1	9 110.7	3 663.2	12 619.5	239.7
27311 27313 27314 2731A 2731B 2731C	Establishments with this product class primary: Textbooks, including teachers' editions Technical, scientific, and professional books Religious books Mass market paperbound books, rack size Book club books Mail order books	111 126 52 11 5	14.4 14.9 5.5 2.5 1.4 (D)	397.5 433.5 129.1 76.6 27.7 (D)	1.3 6.0 1.2 .4 .9	2.2 11.2 1.9 .7 1.4 (D)	26.0 135.3 22.5 7.0 10.9 (D)	2 818.9 1 232.7 360.4 713.6 291.3 (D)	796.4 391.6 174.6 336.2 193.3 (D)	3 524.8 1 617.1 543.0 1 041.3 457.5 (D)	78.2 53.1 9.8 5.5 7.2 (D)
2731D 2731E 2731F 2731G	Adult trade and juvenile books General reference books Other books, excluding pamphlets Pamphlets (5 through 48 pages)	89 37 42 26	8.5 4.0 1.3 2.1	253.0 104.0 30.9 54.1	(D) 1.2 .3 .5 .7	2.4 .8 .7 1.4	24.3 5.5 7.9 13.2	1 323.1 405.8 130.1 158.4	794.0 142.1 52.8 51.9	2 094.5 552.2 182.2 208.9	39.9 5.4 2.6 6.3
2732	Book printing: All establishments in industry	561	43.5	961.4	34.4	67.7	675.6	1 996.5	1 269.3	3 256.3	154.4
27323 27324	Establishments with this product class primary: Textbooks, printing and binding Technical, scientific, and professional books, printing	33 63	4.0	100.9	3.4 5.7	7.0	76.8	208.1	177.2	386.2	14.9
27325 27326 2732A	and binding	10 36 44	7.2 .6 14.5 9.0	172.8 13.7 315.3 178.7	.4 11.7 7.2	11.6 1.0 23.2 13.3	123.2 9.2 228.5 123.4	332.1 29.2 660.8 414.5	244.3 21.6 429.6 178.1	576.1 50.8 1 084.1 588.7	28.9 2.6 71.0 14.8
2732B 2732C	Books, printing only, not bound Pamphlets, printing only or printing and binding	15 31	1.0	25.3 20.2	.8 .6	1.5 1.2	17.9 13.1	54.2 37.7	34.3 23.5	88.9 61.2	2.7 2.6
2741	Miscellaneous publishing: All establishments in industry	2 369	69.4	1 513.2	24.1	44.1	365.2	6 022.9	1 791.0	7 809.5	133.0
27416 27417	Establishments with this product class primary: Telephone directories, publishing	93	10.9	325.3	3.0	6.3	55.1	2 434.2	591.4	3 033.4	26.8
27418	directories, publishing Business service publications, publishing	99	4.4 10.8	81.4	2.0 2.1	3.7	28.1	279.3 911.3	156.1	436.6	11.0 25.8
27419	Patterns, including clothing patterns	107 12	1.6	317.3 28.9	.9	4.3 1.6	40.1 16.2	157.1	160.5 32.4	1 068.8 189.0	4.5
2741A 2741B	Shopping news, publishing Other miscellaneous publishing	293 144	13.5 7.1	189.1 159.1	5.8 3.4	8.5 6.5	59.1 64.8	446.9 535.9	171.0 161.2	618.2 689.8	21.6 22.6
	The state of the s	1-7-4		100.1	0.4	0.0	54.0	000.8	101,2	555.6	

Note: For qualifications of data, see footnotes on table 1a.

Table 5b. Industry-Product Analysis—Value of Shipments and Primary Product Shipments and Specialization and Coverage Ratios for the Industry: 1987 and Earlier Census Years

[An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as merchandising or contract work. Columns A-D show this product pattern for an industry, and column E shows primary product specialization ratio. The extent to which an industry's primary products are shipped by establishments classified in and out of an industry is shown in columns F-H and coverage ratio is shown in column I. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

			Val	ue of shipmer	nts		Value	of primary p	product ship	ments
Industry and product group code	Industry and census year	Total (million dollars)		products	Miscel- laneous receipts (million dollars)	Primary product specialization ratio col. B÷ col. B+C (percent)	Total made in all indus- tries (million dollars)	Made in this industry (million dollars)	Made in other indus- tries (million dollars)	Coverage ratio col. B÷ col. F (percent)
		А	В	С	D	Е	F	G	н	- 1
2711	Newspapers	_ 21 276.3	30 493.9 20 313.7 12 468.1	1 037.0 798.4 487.4	318.4 164.2 100.4	97 96 96	30 493.9 20 313.7 12 468.1	30 493.9 20 313.7 12 468.1		100 100 100
2721	Periodicals	_ 11 478.0	15 793.1 10 278.6 5 297.9	769.2 786.4 570.7	766.8 413.0 187.9	95 93 90	16 492.1 10 625.8 5 528.8	15 793.1 10 278.6 5 297.9	698.9 347.1 230.9	96 97 96
2731	Book publishing	7 740.0	11 010.8 7 077.4 4 384.8	1 011.6 443.5 263.8	597.2 219.0 145.5	92 94 94	11 629.9 7 812.6 5 007.7	11 010.8 7 077.4 4 384.6	619.2 735.2 623.1	95 91 88

Table 5b. Industry-Product Analysis—Value of Shipments and Primary Product Shipments and Specialization and Coverage Ratios for the Industry: 1987 and Earlier Census Years—Con

(An establishment is essigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to en industry (primary), those considered primary to other industries (secondary), and receipts for ectivities such as merchandising or contract work. Columns A-D show this product pattern for an industry, and column E shows primery product specialization ratio. The extent to which an industry's primery products are shipped by establishments classified in and out of an industry is shown in columns F-H end coverage ratio is shown in column I. For meening of ebbrevietions end symbols, see introductory text. For explanation of terms, see appendixes!

			Valu	ue of shipmer	nts	Value of primary product shipments				
Industry and product group code	Industry and census year	Total (million dollers)	Primary products (million dollars)	Secondary products (million dollars)	Miscel- laneous receipts (million dollars)	Primary product speciel- ization ratio col. B÷ col. B+C (percent)	Total made in ell indus- tries (million dollars)	Made in this industry (million dollars)	Made in other indus- tries (million dollers)	Coverage ratio col. B÷ col. F (percent)
		А	В	С	D	E	F	G	н	1
2732	Book printing	2 392.4	2 866.8 2 092.3 1 424.2	354.0 256.5 244.8	35.5 43.6 22.8	89 89 85	3 240.9 2 501.9 1 830.6	2 866.8 2 092.3 1 424.2	374.1 409.5 406.4	88 84 78
2741	Miscellaneous publishing1987 1982_ 1977	2 871.3	7 419.0 2 662.9 1 723.1	147.3 127.9 82.3	243.3 80.5 45.5	98 95 95	8 176.6 3 096.6 1 935.1	7 419.0 2 662.9 1 723.1	757.6 433.7 212.0	91 86 89

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982

[includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text]

comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text]									
			1987		1982				
1987 product code	Product	Number of companies with receipts of \$100,000 or more	Aggregate average circulation per issue ^{1 2 3} (1,000)	Total receipts ¹ (million dollars)	Number of companies with receipts of \$100,000 or more	Aggregate average circulation per issue ^{1 2 3} (1,000)	Total receipts¹ (milion dollars)		
2711	NEWSPAPERS								
	Total	(NA)	(X)	30 493.9	(NA)	(X)	20 313.7		
27111 — 27111 01 27111 11	Daily and Sunday newspapers: receipts from subscriptions and sales	(NA) 87 247	(X) 8 330.5 *7 729.5	5 212.0 511.0 437.0	(NA) 87 325	(X) 4 522.2 *8 078.0	3 922.5 259.3 346.8		
27111 22	Moming and Sunday combinations: Moming editions Sunday editions	1 447	25 464.1 31 761.6	2 105.0	98	-[20 193.9 24 227.4]- 1 378.4		
27111 32	Evening and Sunday combinations: Evening editions Sunday editions Morning and evening combinations (no Sunday editions):]- 134	7 543.9 9 492.3	- 474.5	181	-[11 207.7 13 760.2	620.7		
	Moming editions Evening editions]- 22	-[*1 065.2 *948.7	91.0	19	-[*1 733.3 **1 767.9	79.2		
27111 52	Moming, evening, and Sunday combinations: Moming editions Evening editions Sunday editions	1 74	8 574.0 5 586.2 13 638.2	1 155.2	80	- (S) 9 301.3 (S)	1 119.3		
2/111 00	Daily and Sunday newspapers, receipts from subscriptions and sales, n.s.k.	(NA)	(X)	438.2	(NA)	(X)	118.9		
27112 — 27112 01 27112 11 27112 22 27112 32 27112 42 27112 52 27112 00	Daily and Sunday newspapers: receipts from advertising	110 261 119 137 23 77	888888	20 176.2 1 044.2 1 329.2 9 404.2 1 929.5 199.6 5 004.0	(NA) 107 363 98 185 19 84	8888888	13 233.2 615.7 1 056.8 4 955.7 2 196.8 127.3 4 013.6		
27113 —	n.s.k	(NA)	(X)	1 265.6	(NA)	(X)	267.2		
27113 62	and sales Weekly newspapers, including those issued on Sunday	(NA)	(X)	573.0	(NA)	(X)	429.6		
27113 98	only	315	*46 257.4	474.0	289	(S)	366.1		
27113 00	issued less than once a week	128 (NA)	(S) (X)	74.3 24.8	134 (NA)	(S)	60.8		
27114 — 27114 62	Weekly newspapers, including those issued on Sunday	(NA)	(X)	1 687.5	(NA)	(X)	1 106.9		
27114 98	Other newspapers, including those issued more than once	824	(X)	1 114.8	827	(X)	809.4		
27114 00	a week, but less than four times a week, also those issued less than once a week. Weekly and other newspapers, receipts from advertising,	293	(X)	449.8	308	(X)	291.7		
	n.s.k.	(NA)	(x)	122.9	(NA)	(X)	5.8		

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). For exposars bility of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text

		1987			1982				
1987 product code	Product	Number of companies with receipts of \$100,000 or more	Aggregate average circulation per issue1 ^{2 3} (1,000)		Total receipts ¹ (million dollars)	Number of companies with receipts of \$100,000 or more	Aggregate average circulation per issue ^{1 2} (1,000	Total receipts ¹ (million	
2711	NEWSPAPERS—Con.								
27110	Newspapers, n.s.k.	(NA)		(X)	2 845.1	(NA)		1 621.5	
27110 00	Newspapers, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)		(X)	1 968.6 (NA		(X		
27110 02	Newspapers, n.s.k., typically for establishments with less than 10 employees (see note)			(X)	876,5	(NA)	(X	726.5	
			19	87		1982			
1987 product code	Product	receipts proc of recei \$100,000 (mil		Value of product receipts ¹ (million dollars)	Number of companies with receipts of \$100,000 or more		Value of product receipts' (millior dollars)		
2721	PERIODICALS								
	Total		(NA)		16 492.1		(NA)	10 625.8	
27211	Farm periodicals: receipts from subscriptions, sales, and advertising Paid circulation:		(NA)		183.5		(NA)	246.9	
27211 11 27211 15	Subscriptions and single copy salesAdvertising		24 20		79.1 66.5		38 45	53.7 146.8	
27211 61 27211 00	Controlled circulation, advertising and copy salesFarm periodicals, receipts from subscriptions, sales, and advertising,		12		25.1		19	31.8	
	n.s.k.		(NA)		12.8		(NA)	14.5	
27213	Specialized business and professional periodicals: receipts from subscriptions and sales		(NA)		1 427.1		(NA)	952.8	
27213 24	Paid circulation, single copy and subscriptions: Manufacturing (excluding electronics) Whatestand (excluding electronics)		11		65.8 25.3		415	⁴ 24.4 26.6	
27213 25 27213 27 27213 28	Wholesale and retail trade, including merchandising		18 33 13		119.0 68.9	٦	21 29	86.3	
27213 30 27213 32	Services (excluding data management) Business publications, n.e.c.		20 114		29.5 530.1	<u>}</u>	(NA)	511.9	
26213 34	Controlled circulation, single copy and subscriptions: Manufacturing (excluding electronics)		6 7		2.8		411	415.8	
27213 35 27213 37	Wholesale and retail trade, including merchandising Medical and health care		20		9.3 27.8		12 12	10.4 17.0	
27213 38 27213 40 27213 42	Electronics/data management, Services (excluding data management) Business publications, n.e.c.		10 5 29		16.2 3.5 38.4	-	(NA)	25.3	
27210 42	Professional, institutional, and service publications, single copy and subscriptions:		23		50.4	_			
27213 44 27213 46	Scholarly journalsOther professional publications		36 54		110.2 141.1	}	(NA)	190.3	
27213 00	Specialized business and professional penodicals, receipts from subscriptions and sales, n.s.k		(NA)		239.3		(NA)	44.6	
27214	Specialized business and professional periodicals: receipts from advertising.		(NA)		2 614.5		(NA)	1 647.5	
	Business publications: Paid circulation, advertising:							4400.5	
27214 24 27214 25 27214 27	Manufacturing (excluding electronics) Wholesale and retail trade, including merchandising Medical and health care		13 25 23		64.4 138.9 163.0		414 15 19	4109.5 82.9 69.1	
27214 28 27214 30	Electronics/data management. Services (excluding data management)		7 12		104.7 17.3	1	(NA)	378.3	
27214 32	Business publications, n.e.cControlled circulation, advertising:		87		405.5	7			
27214 34 27214 35	Manufacturing (excluding electronics)		26 43		186.1 199.5		⁴ 41 40	4111.4 63.7	
27214 37 27214 38	Medical and health care		28 18		133.6 207.6	7	26	126.5	
27214 40 27214 42	Services (excluding data management)		20 99		171.5 365.9	_	(NA)	443.3	
27214 44 27214 46	Scholarly journalsOther professional publications		11 42		8.0 121.3	}	(NA)	125.3	
27214 00	Specialized business and professional periodicals, receipts from advertising, n.s.k.		(NA)		327.3		(NA)	137.6	
2721A —	General and consumer periodicals: receipts from subscriptions		(NA)		2 749.2		(NA)	1 596.6	
2721A 20	Women, home, fashion, and other services: fashion women's magazines, domestic science, housekeeping, home and garden management		25		510.5		30	377.8	
2721A 50 2721A 60	General news, including weeklies and biweeklies with news of interest to the general public.		16		383.8		20	181.2	
2721A 60 2721A 70	Business news: news concerning business and industry, directed to a broader readership than those engaged in business for a living		21 36		141.0 33.5		11 (NA)	37.5 (⁵)	
2721A 80	Special interest publications: primarily hobby and entertainment, including art, photography, fishing, hunting, mechanics, science, tennis, golf, skiing, boating, aviation, and other outdoor and sport activities; and		30		00.5		V 17		
2721A 90	automotive		142		769.7		128	511.5	
2721A 00	literature, geography, travel, history, biography, and humor General and consumer periodicals, receipts from subscriptions, n.s.k		44 (NA)		704.3 206.4		53 (NA)	488.6	

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text]

comparabil	ity of product classes and product codes betwaan 1982 and 1987, see appen	, see appendixas. For meaning of abbreviations and symbols, see			1982				
1987 product code	Product	cor	Number of companias with Value of receipts product of receipts¹ \$100,000 (million or more dollars)		Numbar of companies with receipts of \$100,000 or mora			Value of product recaipts¹ (million dollars)	
2721	PERIODICALS—Con.								
2721B — 2721B 10	Ganeral and consumar periodicals: receipts from singla copy salas Comics (subscriptions and single copy sales)		(NA) 5		1 365.0 (D)		(NA) 5		963.8 18.6
2721B 20 2721B 50	Women, homa, fashion, and other services: fashion woman's magazinas, domestic science, housekeeping, home and garden managament. General naws, including waeklies and biweaklias with naws of intarast to		23		342.6		23		358.1
2721B 60	the ganaral public		13		51.6 13.5		12		34.7 (6)
2721B 70 2721B 80	Ragional, metropolitan, and city magazinas Spacial intarast publications: primarily hobby and antertainmant, including art, photography, fishing, hunting, mechanics, scianca, tannis, golf, skiing, boating, aviation, and other outdoor and sport activitias; and		15		(D)		(NA)		(6) (5)
2721B 90	automotiva General intarast publications, including genaral articlas, picturas, fiction, literature, geography, travel, history, biography, and humor		104 35		512.8 216.7		101 35		397.9 153.6
2721B 00	Ganeral and consumer pariodicals, receipts from singla copy salas, n.s.k.		(NA)		156.3		(NA)		6.8
2721C 2721C 10 2721C 20	Ganaral and consumar pariodicals: receipts from advertising Comics Woman, homa, fashion, and other services: fashion women's magazines,		(NA) 3		4 298.5 2.2		(NA) 3		3 161.8 (D)
2721C 50	domastic science, housekeeping, homa and garden management		33		1 110.4		30		788.2
2721C 60	tha genaral public		38 19		608.5 353.6		32 6		668.5 (D)
2721C 70 2721C 80	Regional, metropolitan, and city magazines Special intarest publications: primarily hobby and entertainment, including art, photography, fishing, hunting, mechanics, science, tennis, golf, skiing, boating, aviation, and other outdoor and sport activities; and			50 146.8		(NA)			
2721C 90	automotive General interest publications, including general articles, pictures, fiction, literature, gaography, traval, history, biography, and humor		153 1 034.1 50 617.7			123 62		985.1 472.1	
2721C 00 2721D —	General and consumer periodicals, racaipts from advartising, n.s.k Other periodicals, except shopping naws, directories, or catalogs, n.a.c			425.3 671.8		(NA) (NA)		20.7 509.8	
2721D 10 2721D 15	Religious: religion, theology, church bullatins, local church papers, atc.: Receipts from subscriptions and single copy salas Receipts from advertising	. 41			207.9 41.0		49 19		132.8 13.6
2721D 23	Magazine and comic supplements for Sunday nawspapers: Receipts from salas and advertising Penodicals, n.a.c., axcept shopping news, directories, or catalogs, but including pariodicals such as children's and youths' magazinas, house		3				2		(D)
2721D 31 2721D 33	organs, fratarnal and club, etc. Recaipts from subscriptions Recaipts from single copy sales		39 142.1 17 27.3		30 16			100.3 39.4	
2721D 35 2721D 00	Recaipts from advertising Othar pariodicals, except shopping naws, diractorias, or catalogs, n.a.c., n.s.k		43 (NA)		106.9 (D)	30 (NA)			135.9 (D)
27210 — 27210 00	Periodicals, n.s.k. Periodicals, n.s.k., typically for establishmants with 10 employees or mora		(NA)		3 182.4		(NA)		1 546.6
27210 02	(see note) Penodicals, n.s.k., typically for establishments with less than 10 employeas (see nota)		(NA) (NA)		2 509.2 673.2		(NA) (NA)		1 165.4 381.2
			198	37		1982			
1987 product	Product	Number of companias				Number of companies			
code	Fibalici	with receipts of			Value of receipts1	with receipts of			Value of receipts ¹
		\$100,000 or mora	(Quantity sold ^{1 2}	(million dollars)	\$100,000 or more	Q	uantity sold ^{1 2}	(million dollars)
2731	BOOK PUBLISHING								
	Total	(NA)		(X)	11 629.9	(NA)		(X)	7 812 .6
27311 — 27311 11	Textbooks, including teachers' editions	(NA) 24		(X)	2 953.5 512.4	(NA) 31		(X) **49.0	2 167.9 280.9
27311 12 27311 13	Paperbound, including teachers' editions do High school textbooks (grades 9 through 12):	28		*35.8	171.4	29		**38.7	129.9
27311 13	Hardbound, including teachers' editions millions_ Paperbound, including teachers' editions do College textbooks, grades 13 or higher (including private business and secratarial schools, and post high school vocational schools, institutes, and training courses of	18 18		**19.8 (S)	318.7 55.0	25 19		(S) (S)	272.9 38.9
27311 15 27311 16	college grade): Hardboundmillions_ Paperbounddo_	43 37		(S) *16.8	734.5 213.9	47 40		*66.8 (S)	818.2 118.3
27311 21 27311 23	Workbooks, objective tests, manuals, etc., paperbound: Elementary (grades K through 8)millions High school (grades 9 through 12)do	36 17		*62.7 **10.8	231.6 63.3	30 I		**63.8 **14.5	193.3 54.9
27311 25 27311 31	Collega do Gardon Golden do Gardon d	22		**6.2	44.9	16		(S)	54.5
27311 00	(excluding textbook-felated objective tests and manuals), paperbound	15 (NA)		(S) (X)	104.0 503.9	13 (NA)		(S) (X)	45.4 160.6

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982—Con.

[Includes quantity end value of products of this industry produced by (1) establishments clessified in this industry (primary) end (2) establishments classified in other industries (secondary). For comparability of product classes end product codes between 1982 end 1987, see eppendixes. For meening of ebbrevietions end symbols, see introductory text]

con parabo	in or product classes and product codes between 1992 and 1997, see appoint		1987		1982			
1987 product code	Product	Number of compenies with receipts of \$100,000 or more	Quantity sold ^{1 2}	Velue of receipts ¹ (million dollars)	Number of compenies with receipts of \$100,000 or more	Quantity sold ^{1 2}	Velue of receipts ¹ (million dollars)	
2731	BOOK PUBLISHING—Con.							
27313 —	Technical, scientific, and professional books	(NA)	(X)	1 827.5	(NA)	(X)	1 359.6	
27313 15 27313 17	Hardbound millions_ Paperbound do_ Medical books, including dental subjects (designed for the	21 15	*13.8 5.5	565.6 149.2	31 22	*14.7 (S)	416.8 159.1	
27313 25 27313 27	profession): Hardbound	32 16	(S) (S)	229.6 24.7	33 13	*7.9 *1.6	165.6 25.9	
27313 35 27313 37	readers in the profession): Hardbound	30 24	(S) *9.2	158.0 86.4	22 13	**5.0 (S)	68.3 23.3	
27313 45 27313 47 27313 00	Hardboundmillions Paperbounddo Technical, scientific, and professional books, n.s.k	53 59 (NA)	(S) 40.9 (X)	233.6 162.1 218.3	64 49 (NA)	**13.5 (S) (X)	237.4 160.7 102.4	
27314 —	Religious books	(NA)	(X)	492.1	(NA)	(X)	322.1	
27314 11 27314 13 27314 23	Hardbound, including flexiblemillions Paperbounddo Hymnals and devotionals, including prayer books and	18 14	*8.1 10.5	62.4 34.6	21 9	*17.5 (S)	101.1 13.6	
2707720	missals, hardbound and paperbound	18	(S)	21.9	15	(S)	23.1	
27314 26 27314 28 27314 00	Hardbound millions_ Paperbound do_ Religious books, n.s.k	37 48 (NA)	(S) **44.7 (X)	198.0 107.9 67.2	29 37 (NA)	(S) (S) (X)	74.7 78.2 31.4	
2731A — 2731A 00	Mass market paperbound books, rack size: Mass market paperbound books, rack sizemillions	19	**411.9	836.6	13	456.1	553.4	
2731B — 2731B 15 2731B 17 2731B 00	Book club books Hardbound millions_ Paperbound do_ Book club books, n.s.k.	(NA) 11 5 (NA)	(x) (s)	650.2 650.2	(NA) 20 11 (NA)	(X) (S) *74.4 (X)	417.9 319.6 98.3	
2731C — 2731C 73 2731C 75 2731C 00	Mail order books	(NA) 17 25 (NA)	(X) **52.8 (S) (X)	698.1 582.6 36.8 78.7	(NA) (NA)	(X) (S)	508.6 508.6	
2731D —	Adult trade and juvenile booksAdult trade books whether published by trade publishers or mass market publishers, books of fiction or nonfiction sold	(NA)	(×)	1 939.4	(NA)	(X)	1 111.4	
2731D 41 2731D 47	primarily through retail or wholesale book sellers: Hardbound millions_ Paperbound do_ Juvenile books, fiction and nonfiction, excluding toy and	75 80	(S) (S)	866.9 466.7	76 76	(S) *130.4	560.8 343.7	
2731D 51 2731D 53 2731D 00	coloring books: Hardbound	25 21 (NA)	*50.7 (S) (X)	313.2 106.1 186.5	32 21 (NA)	**41.3 **77.2 (X)	135.6 71.4 -	
2731E 2731E 21 2731E 41 2731E 57 2731E 00	General reference books	(NA) 8 10 41 (NA)	(X) (D) 5.1 (D) (X)	510.8 (D) 1 53.2 (D) 20.0	(NA) 11 17 39 (NA)	(X) (S) *7.2 *5.4 (X)	299.0 164.8 48.1 81.8 4.3	
2731F	Other books, excluding pamphlets University press books:	(NA)	(X)	166.8	(NA)	(×)	218.5	
2731F 13 2731F 15 2731F 16	Hardbound millions_ Paperbound do. Music books, hardbound and paperbound do. Other books, n.e.c.:	7 5 19	.8 *.7 **16.2	17.4 5.7 60.8	7 6 15	*1.4 *1.1 (S)	19.9 6.5 38.3	
2731F 17 2731F 19 2731F 00	Hardbound millions_ Paperbound do_ Other books, excluding pamphlets, n.s.k.	15 29 (NA)	(S) (S) (X)	30.0 40.9 12.0	15 17 (NA)	*9.9 (S) (X)	100.4 36.5 16.9	
2731G — 2731G 43 2731G 59 2731G 00	Pamphlets (5 through 48 pages)	(NA) 13 25 (NA)	(X) (S) *99.4 (X)	140.7 67.0 73.7 -	(NA) 9 19 (NA)	(X) 23.4 (S) (X)	75.4 20.0 55.4	
27310 — 27310 00	Book publishing, n.s.k. Book publishing, n.s.k., typically for establishments with 5	(NA)	(X)	1 414.3	(NA)	(X)	778.7 505.7	
27310 02	Book publishing, n.s.k., typically for establishments with 5 employees or more (see note) Book publishing, n.s.k., typically for establishments with less than 5 employees (see note)	(NA) (NA)	(x) (x)	1 083.3 331.0	(NA) (NA)	(X)	273.0	

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). For comparability of product classes and product codes between 1982 and 1987, see appendixes. For meaning of abbreviations and symbols, see introductory text]

		19	987	15	1982		
1987 product code	Product	Number of companies with receipts of \$100,000 or more	Value of product receipts ¹ (million dollars)	Number of companies with receipts of \$100,000 or more	Value of product receipts' (million dollars)		
2732	BOOK PRINTING						
	Total	(NA)	3 240.9	(NA)	2 501.9		
27323 —	Textbooks, printing and binding	(NA)	515.7	(NA)	335.1		
27323 10 27323 12	Hardbound, including teachers' editions Paperbound, including teachers' editions College textbooks (grades 13 or higher, including private business and secretarial schools, and post high school vocational schools, institutes, and training courses of college grade):	18 33	123.4 123.5	13 30	76.7 50.2		
27323 14 27323 16	HardboundPaperbound	27 41	108.7 86.4	18 38	54.5 60.6		
27323 18 27323 00	Workbooks and standardized tests Textbooks, printing and binding, n.s.k	24 (NA)	59.5 14.3	29 (NA)	93.1		
27324 — 27324 22 27324 25 27324 00	Technical, scientific, and professional books, printing and binding	(NA) 50 152 (NA)	589.5 192.2 376.0 21.3	(NA) 56 154 (NA)	289.5 86.8 202.7		
27325 —	Religious books, printing and binding	(NA)	141.4	(NA)	107.3		
27325 32 27325 35 27325 00	Hardbound, including flexible covers	26 51 (NA)	75.2 65.4 .9	26 58 (NA)	40.5 66.7		
27326	General books (trade, etc.), printing and bindingBook club and mail order books:	(NA)	709.8	(NA)	615.4		
27326 42 27326 43	Hardbound	16 17	110.6 32.0	16 25	93.8 27.2		
27326 44	Mass market paperbound books, rack size, distributed predominantly to mass market outlets Adult trade books, books of fiction or nonfiction sold primarily through retail or wholesale book sellers at trade discounts:	18	149.4	22	116.8		
27326 45 27326 46	Hardbound Paperbound P	26 35	191.1 126.8	33 48	147.1 166.2		
27326 47 27326 48 27326 00	Juvenile books, fiction and nonfiction, including toy and coloring books: Hardbound	11 23 (NA)	45.7 40.6 13.8	13 24 (NA)	32.4 31.8		
2732A — 2732A 52	Other books, n.e.c., printing and binding Encyclopedias Other reference books (including dictionaries, thesauruses, etc.):	(NA) 5	642.6 112.1	(NA) 5	383.6 51.3		
2732A 54 2732A 55	Hardbound	17 34	62.0 54.1	16 24	54.1 23.4		
2732A 56 2732A 57 2732A 00	Hardbound	32 79 . (NA)	290.2 103.2 21.1	27 51 (NA)	195.7 59.2		
2732B — 2732B 00	Books, printing only, not bound: Books, printing only, not bound	61	120.9	100	111.8		
2732C — 2732C 00	Pamphlets, printing only or printing and binding: Pamphlets, printing only or printing and binding	146	132.3	254	200.8		
27320 — 27320 00	Books, printing only or printing and binding, n.s.k.	(NA)	388.8	(NA)	458.4		
27320 02	Books, printing only or printing and binding, n.s.k., typically for establishments with 10 employees or more (see note)	(NA) (NA)	312.2 76.7	(NA)	415.0 43.4		
2741	MISCELLANEOUS PUBLISHING	(IVA)	70.7	(NA)	43.4		
	Total	(NA)	8 176.6	(NA)	3 096.6		
27416 — 27416 00	Telephone directories, publishing:	72	3 042.9	46	7393.8		
27417	Catalogs and directories, except telephone directories, publishing	(NA)	606.4	(NA)	488.9		
27417 13	Directories (except telephone directories), including business reference services	105	481.5	97	378.9		
27417 15 27417 17 27417 00	Library and museum Other Catalogs and directories publishing, except telephone directories, n.s.k.	2 40 (NA)]- 122.3 2.7	42 (NA)	87.7 722.3		
27418 — 27418 13	Business service publications, publishing Business service newsletters, excluding publications which are cumulated	(NA)	932.0	(NA)	535.5		
27418 15	Other business service publications, looseleaf and hardbound, including	52	96.5	49	184.3		
27418 00 27419 —	tax, credit, government regulations, cumulative indexes, etc	59 (NA)	715.0 120.4	51 (NA)	319.0 32.1		
27419 00	Patterns, including clothing patterns: Patterns, including clothing patterns	11	173.3	14	181.8		
2741A 2741A 00	Shopping news, publishing: Shopping news	411	774.4	333	351.3		

See footnotes at end of table.

Table 6a. Product and Product Classes—Quantity Sold and Value of Receipts of All Producers: 1987 and 1982-Con.

[Includes quantity and value of products of this industry produced by (1) esteblishments clessified in this industry (primary) end (2) esteblishments clessified in other industries (secondary). For comparability of product classes end product codes between 1982 end 1987, see eppendixes. For meening of ebbrevietions end symbols, see introductory text]

		19	87	19	982
1987 product code	Product	Number of compenies with receipts of \$100,000 or more	Velue of product receipts' (million dollars)	Number of companies with receipts of \$100,000 or more	Velue of product receipts' (million dollers)
2741	MISCELLANEOUS PUBLISHING—Con.				
2741B — 2741B 13	Other miscellaneous publishing	(NA)	863.5	(NA)	659.2
2741B 14 2741B 15 2741B 17	cards, etc. Sheet music (less than 5 pages), except music in book or pemphlet form. Calendars Multimedie kits	14 10 42 25	23.5 14.9 98.1 61.7	13 17 28 16	11.0 42.2 59.2 27.1
2741B 19 2741B 23	Mane hydrographic charte atlacce gazottopre and globa covers	20	144.8	29	82.7 134.4
2741B 21 2741B 25 2741B 27	Micropublishing (including publishing of original meterial as well as republishing of printed matter in microform)	5 16 14	(e) 39.1 45.6	(NA)	236.1
2741B 91 2741B 00	Other miscellaneous publications, including almanacs, yearbooks, etc Other miscellaneous publishing, n.s.k	88 (NA)	⁸ 320.5 6.1	(NA)	66.5
27410 27410 00	Miscellaneous publishing, n.s.k. Miscellaneous publishing, n.s.k. typically for establishments with 5	(NA)	1 784.1	(NA)	486.0
27410 02	Miscellaneous publishing, n.s.k. Miscellaneous publishing, n.s.k., typically for establishments with 5 employees or more (see note) Miscellaneous publishing, n.s.k., typically for establishments with less than	(NA)	1 620.2	(NA)	383.2
	5 employees (see note)	(NA)	163.9	(NA)	102.8

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

Data reported by all producers, not just those with receipts of \$100,000 or more.

For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

Includes paid, free, bulk, etc. "Issue" is the sum of all editions published on a given day in the case of establishments publishing newspapers on a combined frequency-of-issue basis (morning and Sunday, evening and Sunday, etc.). Separate average circulation figures were computed for morning editions, evening editions, and Sunday editions.

For 1982, product codes 27213 24, 27213 44, and 27214 34 included electronics.

For 1982, product code 2721B 60 was included in product code 2721B 00.

For 1982, product code 2741B 01 included an undetermined amount of product code 27416 00.

For 1987, product code 2741B 21 is included in product code 2741B 91.

Table 6b. Product Classes—Value of Receipts by All Producers for Specified States: 1987

[Million dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by date in teble 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they ere either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes end product codes between 1982 and 1987 and explanation of terms, see appendixes]

Product class and geographic area	1987 velue of product shipments	1982 velue of product shipments	Product cless and geographic area	1987 value of product shipments	1982 value of product shipments
27111, DAILY AND SUNDAY NEWSPAPERS: RECEIPTS FROM SUBSCRIPTIONS AND SALES	-		27111, DAILY AND SUNDAY NEWSPAPERS: RECEIPTS FROM SUBSCRIPTIONS AND SALES—Con.		
United States	5 212.0	3 922.5	Nebraska	28.7	22.5
A1-6			Nevade	18.2	9.2
Alabama	47.9	28.7	New Hampshire	15.8	11.3
Alaska	5.1 72.9	5.5	New Jersey	137.6	141.4
ArizonaArkansas	22.1	43.5 18.0	New Mexico	23.9	16.0
California	548.2	403.7			
Odinoma	340.2	405.7	New York	637.8	529.5
Colorado	58.4	45.2	North Carolina	84.0	59.1
Connecticut	102.9	85.9	North Dakota	14.1	10.5
Florida	235.1	173.3	Ohio	250.6	191.6
Georgia	91.8	86.4	Oklehoma	43.6	31.8
Idaho	15.9	11.2			
Illinois	287.5	225.6	Oregon	54.7	32.6
Indiana	112.0	85.5	Pennsylvenia	315.3	269.1
lowa	77.3	57.2	Rhode Island	32.9 37.4	(NA) 25.7
Kansas	32.7	24.3	South Carolina	37.4 12.1	9.5
Kentucky	38.7	38.1	South Dakota	12.1	9.5
			Tannanna	93.9	69.0
Louisiana	52.2	41.8	Texas	238.2	192.1
Maine	26.8	21.5	Utah	10.4	27.0
Maryland	70.8	55.0	Vermont	12.8	8.3
Massachusetts	210.8	169.6 137.3	Virginia	229.1	56.2
Michigan	170.8	137.3	**************************************	220.1	00.2
Minnesota	92.0	62.7	Washington	101.4	73.4
Mississippi	22.7	14.4	West Virginia	25.8	21.7
Missouri	99.7	81.7	Wisconsin	115.0	74.7
Montana	17.8	11.1	Wyoming	5.5	4.8

[Million dollars. Product classas coverad are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscallaneous or "not spacified by type" classas. Statistics for some States are withheld because they are aither lass than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbraviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and explanation of terms, see appendixes]

Product class and geographic area	1987 value of product shipments	1982 value of product shipments	Product class and geographic area	1987 value of product shipments	1982 value o product shipment
27112, DAILY AND SUNDAY NEWSPAPERS: RECEIPTS FROM ADVERTISING			27114, WEEKLY AND OTHER NEWSPAPERS: RECEIPTS FROM ADVERTISING		
United Statas	20 176.2	13 233.2	United States	1 687.5	1 106.
labama	182.3 19.1	118.8 32.5	Alabama	11.6	8.:
klaska krizona	366.3	196.4	Arizona	17.9	8.
ırkansas	90.6	63.0	Arkansas	8.0 201.4	7. 127.
California	2 790.6	1 839.2	Colorado	22.8	14.
coloradoconnacticut	311.3 346.5	241.6 183.9	Connecticut	40.9	15.
lorida	1 387.1	846.3	District of Columbia	13.4	18.
Saorgiadaho	438.7 40.6	242.9 37.7	Florida Georgia	78.2 42.2	70. 27.
			Idaho	2.7	3.
llinoisndiana	945.3 333.9	616.1 243.0	Illinois	112.9	85.
owa	157.6	121.7	Indiana	20.6	12.
ansasentuckyentucky	98.9 145.7	84.0 117.8	lowa Kansas	13.1 9.1	10.
			Kantucky	26.5	11.
ouisiana laine		201.4 38.9	Louisiana	15.4	14.
laryland	298.3	160.3	Maine	9.3	5.
lassachusetts	803.9 572.2	411.8 403.5	Maryland Massachusatts	49.3 72.8	25. 50.
			Michigan	60.4	36.
linnasota lississippi	289.9 76.3	180.6 64.0		24.5	21.
issouri	333.0	244.9	Minnesota Mississippi	13.0	13
ontana abraska	42.3 98.8	36.4 71.6	Missouri	64.8	35.
			Montana Nebraska Nebraska	2. 7 9.4	3
avada ew Hampshire	93.4 67.5	64.3 28.7			
ew Jersey	737.9	416.5	New Hampshire	19.8 88. 7	3 45
aw Mexicoew York	87.0 2 261. 7	71.3 1 365.7	Naw Mexico	2.5	3.
	}		Naw York	187.4 39.9	63.
orth Carolinaorth Dakota	391.2 35.5	222.9 27.4			
hio	781.5	568.7	OhloOklahoma	50.9 7.8	34,
klahomae regon		177. 7 130.4	Oregon	21.4	27.
			Pennsylvania	78.4	51.
annsylvaniahode Islandhode Island	987.0 116.6	677.2 (NA)	Rhode Island	6.2	3.
outh Carolina	173.1	105.3	South Carolina	13.9	10.
outh Dakotaannassae	26.2 298.3	20.9 199.4	Tennassaa	23.9 53.8	14. 42.
			Utah	4.5	5.
exastah	1 292.9 33.4	1 030.9 114.4	Vermont	5.8	(NA
armont	31.5	15.5	Virginia	56.7	15.
rginia ashington	473.2 383.0	200.0 276.7	Washington	22.6 2.6	21.
			Wisconsin	38.5	63.
ast Virginiaisconsin	78.1 273.2	63.1 169.0	Wyoming	3.6	2
yoming	18.2	19.6	27211, FARM PERIODICALS:		
7113, WEEKLY AND OTHER NEWSPAPERS: RECEIPTS FROM SUBSCRIPTIONS AND			SUBSCRIPTIONS, SALES, AND ADVERTISING		
SALES			United States	183.5	246.
Unitad Statas	573.0	429.6	California	7.6	10.
labama	2.4	(NA)	lowa	18.5	(N)
rizona	3.3	(NA)	Missouri	5.2 2.4	11.
aliforniaoloradoolorado	29.7	20.9	Wisconsin	30.3	5 13
onnacticut	17.9	3.9			
Istrict of Columbia	9.4	15.6	27213, SPECIALIZED BUSINESS AND		
aorgia	2.1	3.6	PROFESSIONAL PERIODICALS:		
lnoišdlanadlana	19.3	14.0	SUBSCRIPTIONS AND SALES		
wa	3.0	2.7	United States	1 427.1	952
ansas	2.1	2.7	Arizona	3.4	(NA
antucky	17.9	2.7	California	63.6	44.
lainalaryland	3.7	(NA) 3.4	Colorado	4.3 10.3	2.9
	18.9	14.5	District of Columbia	126.4	33.
assacnusaπs		7.3	Florida	20.2	2
	7.7		Georgia	25.6	11
ichiganinnasota	6.2	5.0	Kansas	3.6	(N
ichigan innasota issouń	6.2	4.4	Maryland		18
ichigan innasotassourissouri	6.2 3.3 27.2		Maryland Massachusetts	40.4 84.5	
ichigan innasota issouri www.derseyaw York	6.2 3.3 27.2 132.6	4.4 12.7 69.8	Maryland	40.4 84.5	43
ichigan innasota issouri ew Jersey aw York orth Carolina	6.2 3.3 27.2 132.6 7.9 12.9	4.4 12.7 69.8 7.8 9.2	Maryland Massachusetts Michigan Minnesota	40.4 84.5 . 3.4 17.0	43 10 2
lichigan innasota issouri sew Jersey aw York orth Carolina	6.2 3.3 27.2 132.6 7.9 12.9 6.3	4.4 12.7 69.8 7.8 9.2 3.0	Maryland Massachusetts Michigan Minnesota New Jersey Messachusetts	40.4 84.5 . 3.4 17.0 62.0	43. 10. 2. 32.
lichigan linnasota lissouri lew Jersey aw York lorth Carolina lhio regon ennsylvania	6.2 3.3 27.2 132.6 7.9 12.9 6.3 21.1	4.4 12.7 69.8 7.8 9.2	Maryland Massachusetts Michigan Minnesota	40.4 84.5 . 3.4 17.0	43. 10. 2. 32. 288.
lichigan Iinnasota Iissoun Iis	6.2 3.3 27.2 132.6 7.9 12.9 6.3 21.1 3.1	4.4 12.7 69.8 7.8 9.2 3.0 21.6 (NA)	Maryland Massachusetts Michigan Minnesota New Jersey New York North Carolina	40.4 84.5 · 3.4 17.0 62.0 357.6 4.9	43. 10. 2. 32. 288. (NA
Aassachusatts Aichigan Ainnasota Aissour Aissour Alew Jersey Alaw York Alorth Carolina Dregon Pennsylvania Bennessee Fennessee	6.2 3.3 27.2 132.6 7.9 12.9 6.3 21.1 3.1	4.4 12.7 69.8 7.8 9.2 3.0 21.6	Maryland Massachusetts Michigan Minnesota New Jersey New York	40.4 84.5 3.4 17.0 62.0 357.6	43. 10. 2. 32. 288. (NA 21.
dichigan dinnasota dissouri lissouri lew Jersey law York lorth Carolina blio pregon lennsylvania louth Carolina louth Carolina louth Carolina louth Carolina	6.2 3.3 27.2 132.6 7.9 12.9 6.3 21.1 3.1 4.3 26.2 15.9	4.4 12.7 69.8 7.8 9.2 3.0 21.6 (NA)	Maryland Massachusetts Michigan Minnesota New Jersey New York North Carolina Ohio	40.4 84.5 . 3.4 17.0 62.0 357.6 4.9	18. 43. 10. 2. 32. 288. (NA 21. 72. 9.

[Million dollars: Product classes covered ere those that are economically significent end whose production is geographically dispersed, provided dispersion is not approximated by date in table 2.

Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

between 1982 and 1987 and explanation of terms, see		4000		100-	4555
Product cless end geographic erea	1987 velue of product shipments	1982 velue of product shipments	Product class end geographic erea	1987 value of product shipments	1982 value of product shipments
27214, SPECIALIZED BUSINESS AND PROFESSIONAL PERIODICALS: ADVERTISING			2721C, GENERAL AND CONSUMER PERIODICALS: ADVERTISING—Con.		
United States	2 614.5	1 647.5	OhioOregon	25.0 2.9	16.0 (NA)
	1		Texas	27.4	23.8
Artansas	6.0	(NA) (NA)	Virginia Washington	3.5 5.7	(NA) 3.1
California	247.9	84.7	Wisconsin	10.9	12.2
Colorado	11.4 59.1	15.2 53.8			
District of Columbia	24.5	20.7	2721D, OTHER PERIODICALS, N.E.C.		
Florida	26.2	9.9	United States	671.8	509.8
Georgia	43.9	(NA) 210.3	California	15.5	14.0
IllinoisIndiana	286.4 5.9	(NA)	Connecticut	12.6	2.4
lowa	10.9	13.4	Florida	26.0	2.9
Kansas	33.6	(NA)	Michigan	69.1 6.4	88.6 3.5
Louisiane	2.6 9.1	4.2 (NA)	Missouri	33.4	32.1
Massachusetts	129.8	66.0	New Jersey	10.3	2.2
Michigan	15.4	30.3	New YorkNorth Carolina	193.3	168.5
Missouri	22.9	19.9	Ohio	7.5 66.4	(NA) 27.8
New Hempshire New Jersey	44.5 196.8	10.7 100.0		26.8	
New York	912.3	713.3	Pennsylvania Tennessee	84.0	13.4 23.0
North Carolina	15.9	(NA)	Texas	4.3	14.4
Ohio	139.4	114.1	Virginia	4.1	(NA)
Pennsylvania Tennessee	118.8	28.2 5.4	27311, TEXTBOOKS, INCLUDING TEACHERS		
Texas	42.1	40.6	EDITIONS		
Virginia	10.2	4.4		0.050.5	0.407.0
Washington	2.6	2.9	United States	2 953.5	2 167.9
Wisconsin	13.3	10.5	California	218.9	126.5
2721A, GENERAL AND CONSUMER			Connecticut	19.1 435.6	(NA) 289.1
PERIODICALS: SUBSCRIPTIONS			Maryland	2.5	(NA)
United States	2 749.2	1 596.6	Massachusetts	504.6	369.7
			New York	946.2	941.3
CaliforniaColorado	125.5	100.3 (NA)	Ohio	234.3 144.7	147.6 23.8
Connecticut	34.9	17.2			
FloridaIllinois	17.5 106.6	(NA) 73.1	27313, TECHNICAL, SCIENTIFIC, AND		
			PROFESSIONAL BOOKS		
Massachusetts	24.3 9.4	13.5 6.5	United States	1 827.5	1 359.6
New York	1 502.1	717.7	California	110.5	138.1
Ohio Oregon	13.2	33.9 (NA)	Connecticut	54.5	(NA)
Texas	18.3	12.1	District of Columbia	5.4	3.1
Virginia	2.3	(NA)	Florida	20.0	14.2 11.1
Washington	2.3	(NA) 13.2	Illinois	113.4	69.3
Wisconsin	10.5	13.2	Maryland	24.4	24.1
2721B, GENERAL AND CONSUMER			Massachusetts	94.1	63.2
PERIÓDICALS: SINGLE COPY SALES			New York	184.5 559.4	144.4 404.0
United Statee	1 365.0	963.8	Ohio	76.3	68.7
	1		Pennsylvania	148.0	103.3
CaliforniaColorado	125.4 3.6	80.2 (NA)	Texas	5.6	9.1
District of Columbia	8.4	(NA)	Washington	3.2	(NA)
Illinois Massachusetts	65.9 10.5	(NA) (NA)	27314, RELIGIOUS BOOKS		
Michigan New York	2.1 853.4	(NA) 586.1	United States	492.1	322.1
Wisconsin	4.5	4.2	Illinois	36.8	29.1
			Indiana	5.5 21,3	6.3 17.1
2721C, GENERAL AND CONSUMER PERIODICALS: ADVERTISING			New Jersey	28.8	27.0
			New York	69.9	45.0
United States	4 298.5	3 161.8	Oregon	13.2	(NA)
Arizona	4.9	(NA)	Pennsylvania	28.4	(NA) 25.9
Arkansas	3.1 327.3	(NA) 282.1	Tennessee	156.4	72.9
Colorado	5.4	3.5	2731A, MASS MARKET PAPERBOUND		
Connecticut	60.8	27.5	BOOKS, RACK SIZE		
District of Columbia	116.6	89.9			550.4
Florida Georgia	18.5	26.2 (NA)	United Statee	836.6	553.4
Hawaii	13.1	(NA)	New York	829.5	364.5
Illinois	156.0	97.5			
Kansas	2.8	(NA)	2731B, BOOK CLUB BOOKS		
Louisiana	2.2	(NA) (NA)	United Statee	650.2	417.9
Massachusetts	31.7	16.0			
Michigan	35.0	5.9			
Minnesota	7.7	17.2	2731C, MAIL ORDER BOOKS		
MissouriNew Jersey	17.7 16.3	(NA) 9.4	United States	698.1	508.6
New York	2 895.8	2 184.7			
North Carolina	14.4	(NA)	California	16.8	8.2

[Millon dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For meaning of abbreviations and symbols, see introductory text. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

between 1982 and 1987 and explanation of terms, see a	rhheuniyes]				
Product class and geographic area	1987 value of product shipments	1982 value of product shipments	Product class and geographic area	1987 value of product shipments	1982 value of product shipments
2731D, ADULT TRADE AND JUVENILE BOOKS			27326, GENERAL BOOKS (TRADE, ETC.), PRINTING AND BINDING		
United States	1 939.4	1 111.4	United States	709.8	615.4
California	119.3	45.5	California	12.8	13.2
Connecticut	3.6	(NA)	Illinois	29.0	24.3
Illinois	26.4	32.1 (NA)	Massachusetts	28.5	30.7 6.7
Maine Massachusetts	3.7 94.3	(NA) 45.2	Michigan New Jersey	2.3	(NA)
New York	45.9 1 396.2	26.9 736.3	New York	68.8 121.3	112.4 82.2
Pennsylvania	11.1	55.7	Texas	4.1	2.0
Texas	2.3	(NA)	Virginia	88.1	41.4
2731E, GENERAL REFERENCE BOOKS			2732A, OTHER BOOKS, N.E.C., PRINTING AND BINDING		
United States	510.8	299.0			
New York	35.3	32.6	United States	642.6	383.6
TOW TOTA	00.0	02.0	Georgia	9.7	(NA)
2731F, OTHER BOOKS, EXCLUDING			Illinois Kansas	6.5	2.9 (NA)
PAMPHLETS			Maryland	2.7	13.4
Haltod Ctaton	166.8	218.5	Michigan	18.4	13.3
United States	100.8	210.5	Minnesota	3.2	(NA)
Connecticut	17.1	(NA)	New York	14.7	10.3
Illinois	17.2 30.3	(NA) (NA)	North Carolina	35.2 79.2	(NA) 36.3
New York	23.3	49.3			
Wisconsin	11.2	22.5	2732B, BOOKS, PRINTING ONLY, NOT BOUND		
2731G, PAMPHLETS (5 THROUGH 48 PAGES)			United States	120.9	111.8
United States	140.7	75.4			
New York	7.8	2.7	California	3.2 5.5	2.1 8.9
			Maryland	10.8	11.8
27323, TEXTBOOKS, PRINTING AND BINDING			New York	7.1 6.6	16.8 2.2
United States	515.7	335.1	2732C, PAMPHLETS, PRINTING ONLY OR PRINTING AND BINDING		
California	12.4	4.7			
Illinois Maryland	11.9 17.3	8.0 (NA)	United States	132.3	200.8
Michigan	52.8	26.0	California	4.4	10.4
Minnesota	8.5	(NA)	Illinois	5.5	14.4
New York	27.6	9.8	Maryland Massachusetts	5.5 4.9	18.8 9.4
Ohio	57.5	49.4	Michigan	5.3	2.2
Pennsylvania Wisconsin	10.8	7.2 72.9	Minnesota	7.3	3.6
			New Jersey	21.4	6.2
27324, TECHNICAL, SCIENTIFIC, AND			New York North Carolina	15.0 5.4	35.3 (NA)
PROFESSIONAL BOOKS, PRINTING AND BINDING			Ohio	2.8	2.6
United States	589.5	289.5	Pennsylvania	10.5	29.5 4.3
	309.5	209.5	Virginia	6.4	6.3
California	47.9	31.8			
Georgia	13.9 26.0	4.4 (NA)	27416, TELEPHONE DIRECTORIES,		
Kentucky	6.3	(NA)	PUBLISHING		
Maryland	45.8	31.3	United States	3 042.9	1393.8
Massachusetts	51.6	31.0			
Michigan Minnesota	43.0 10.0	21.4 (NA)	Florida	6.3 43.4	(NA) (NA)
Missouri	25.0	(NA)	Texas	7.9	(NA)
New Jersey	3.4	12.0			
New York	36.6	21.7	27417, CATALOGS AND DIRECTORIES,		
North Carolina	10.0	(NA)	EXCEPT TELEPHONE DIRECTORIES,		
Ohio Pennsylvania	19.8 59.9	14.3 11.5	PUBLISHING		
Texas	9.9	9.2	United States	606.4	1488.9
Utah	18.9	(NA)	California	32.2	(NA)
Virginia	24.3	10.7	Connecticut	5.1	(NA)
Washington	5.2	2.6	District of Columbia	4.2 12.5	(NA) (NA)
AZONE DELIGIOUS POCKS PRINTING			Georgia	6.8	(NA)
27325, RELIGIOUS BOOKS, PRINTING AND BINDING				19.6	(RIA)
			Illinois	6.9	(NA) (NA)
United States	141.4	107.3	Kansas	36.4	(NA)
Illinois	7.3	10.7	Michigan New Jersey	25.0 19.9	(NA) (NA)
Michigan	13.4	5.4			1. 1
New YorkOhio	5.3 16.2	3.2 18.9	New York	291.4 24.6	(NA) (NA)
Pennsylvania	18.9	2.9	Pennsylvania	13.8	(NA)
Texas	4.5	I (NA)	Wisconsin	2.6	(NA)

[Million dollars. Product classes covered are thosa that are economically significant and whosa production is gaographically disparsed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withhald because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 1987. For maaning of abbraviations and symbols, saa introductory taxt. For comparability of product classes and product codes between 1982 and 1987 and explanation of terms, see appendixes]

Product class and geographic area	1987 valua of product shipmants	1982 valua of product shipments	Product class and gaographic area	1987 value of product shipments	1982 valua of product shipmants
27418, BUSINESS SERVICE PUBLICATIONS,			2741A, SHOPPING NEWS, PUBLISHING-Con.		
PUBLISHING			Managhuagta	10.5	(010)
			Massachusetts	12.5 31.4	(NA)
United States	932.0	535.5	Michigan	22.6	(NA) (NA)
			Mississippi	2.0	(NA)
California	101.1	49.0	Missouri	7.9	(NA)
District of Columbia	27.9	(NA)			` '
Florida	18.5	(NA)	Nebraska	2.7	(NA)
Illinois	26.1	6.1	New Jersay	15.8	(NA)
Maryland	10.9	(NA)	New YorkNorth Carolina	106.8 18.9	(NA) (NA)
			Ohio	13.4	(NA)
Massachusetts	28.9	3.8	0110	10.4	(140)
New Jersey	90.0	31.8	Oregon	19.9	(NA)
New York	458.9	(NA)	Pannsylvania	25.2	(NA)
Ohio	13.2	8.1	Rhoda Island	2.0	(NA)
			South Carolina	4.3 3.0	(NA) (NA)
27440 DATTERNIC INCLUDING OLOTHING			South Dakota	3.0	(NA)
27419, PATTERNS, INCLUDING CLOTHING			Tannessea	9.5	(NA)
PATTERNS			Texas	25.6	(NA)
United States	173.3	181.8	Virginia	4.1	(NA)
United States	1/3.3	101.0	Washington	10.6	(NA)
			West Virginia	5.2	(NA)
New York	2.6	(NA)	Wisconsin	28.2	(NA)
2741A, SHOPPING NEWS, PUBLISHING			2741B, OTHER MISCELLANEOUS PUBLISHING		
United States	774.4	351.3	United States	863.5	659.2
			California	97.1	(NIA)
Alabama	2.7	(NA)	California Colorado	53.6	(NA) (NA)
Arizona	9.4	(NA)	Connecticut	21.3	(NA)
Arkansas	4.7	(NA)	Florida	30.8	(NA)
California	146.2	(NA)	Illinois	145.2	(NA)
Colorado	2.8	(NA)			, ,
			Indiana	3.3	(NA)
Connecticut	6.6	(NA)	Kentucky	51.4 30.7	(NA) (NA)
Florida	72.2	(NA)	Massachusetts		(NA)
Georgia	10.4	(NA)	Michigan Minnesota	68.8 23.9	(NA)
Illinois	39.3	(NA)			(IVA)
Indiana	12.5	(NA)	Missouri	26.4	(NA)
			New York	59.2	(NA)
lowa	33.6	(NA)	North Carolina	6.7	(NA)
Kansas	6.0	(NA)	Ohio	7.9	(NA)
Kentucky	8.0	(NA)	Pennsylvania	15.0	(NA)
Louisiana	9.1 8.3	(NA)	Texas	51.7 6.4	(NA) (NA)
Maryland	8.3	(NA)	Virginia	6.4	(INA)

¹For 1982, product class 27417 included an undatarmined amount of product class 27416.

Table 6c. Historical Statistics for Product Classes—Value Shipped by All Producers: 1987 and Earlier Years

[Million dollars. For meaning of abbraviations and symbols, sea introductory taxt. For comparability of product classas and product codes between 1982 and 1987 and axplanation of terms, sea appendixes]

appendo	icea]								
1987 product code	Product class	1987	19861	19851	19841	19831	1982	1977	1972
2711- 27111	Newspapers	30 493. 9	27 716.0	25 614.1	24 03 3.6	22 292.9	20 313.7	12 468.1	7 901.1
27112 27113	sales Daily and Sunday newspapars: recaipts from advertising Weekly and other newspapers: recaipts from subscriptions and	5 212.0 20 176.2	4 966.3 18 730.3	4 582.2 17 507.9	4 355.1 16 338.7	4 260.3 14 640.9	3 922.5 13 233.2	2 561.1 8 140.5	1 746.8 5 213.8
27114 27110	sales Weekly and other newspapers: receipts from advartising Newspapers, n.s.k	573.0 1 687.5 2 845.1	579.3 1 568.8 1 871.4	473.0 1 383.3 1 667.7	468.9 1 343.5 1 527.5	471.1 1 290.3 1 630.3	429.6 1 106.9 1 621.5	240.6 734.5 791.4	106.9 386.5 447.1
2721- 27211 27213	Periodicals Farm periodicals: subscriptions, sales, and advertising Specialized business and professional periodicals: subscriptions	16 49 2.1 183.5	14 445.2 279.5	14 077.1 294.2	12 883.5 270.8	11 622.9 282.0	10 625.8 246.9	5 5 2 8.8 107.5	3 187.0 75.9
27214 2721A	and sales Specialized businass and professional periodicals: advertising General and consumer periodicals: subscriptions	1 427.1 2 614.5 2 749.2	1 336.0 2 643.2 2 416.0	1 299.4 2 513.2 2 294.1	1 134.8 2 239.0 2 138.8	1 076.7 1 887.0 2 057.6	952.8 1 647.5 1 596.6	464.2 850.2	262.2 647.9
2721B 2721C 2721D 27210	General and consumer periodicals: single copy salas General and consumer periodicals: advertising Other periodicals, n.e.c. Periodicals, n.s.k	1 365.0 4 298.5 671.8 3 182.4	1 330.7 3 938.5 771.5 1 729.9	1 323.4 3 798.4 727.8 1 826.4	1 265.0 3 517.5 663.3 1 654.2	1 150.0 3 247.1 561.4 1 361.1	963.8 3 161.8 509.8 1 546.6	1 685.7 1 595.5 250.7 575.0	832.8 895.7 282.1 190.4
2731- 27311 27313 27314	Book publishing Textbooks, including teachars' editions Technical, scientific, and professional books Religious books	11 629.9 2 953.5 1 827.5 492.1	10 649.0 3 179.3 1 925.4 454.6	10 167.0 2 905.6 1 789.5 467.0	9 383.9 2 596.7 1 715.5 420.9	8 3 98. 7 2 373.7 1 441.1 369.8	7 812.6 2 167.9 1 359.6 322.1	5 007.7 1 408.7 684.1 241.6	2 915.4 809.6 403.0 131.2
2731A 2731B 2731C	Mass market paperbound books, rack siza Book club books Mail order books	836.6 650.2 698.1	799.5 446.8 616.1	804.5 435.2 591.5	779.4 420.2 579.9	579.1 470.8 508.4	553.4 417.9 508.6	1 895.6	1 006.7
2731D 2731E 2731F 2731G	Adult trada and juvanila books General reference books Cther books, excluding pamphlats Pamphlets (5 through 48 pages)	1 939.4 510.8 168.8 140.7	1 675.1 424.6 185.2 82.9	1 608.2 388.6 165.7 84.6	1 352.3 345.1 190.2 79.1	1 223.2 319.3 217.7 77.0	1 111.4 299.0 218.5 75.4	300.1 110.4 49.1	235.3 125.4 48.7
27310	Book publishing, n.s.k.	1 414.3	859.6	926.5	904.6	818.7	778.7	318.1	155.5

See footnotes at end of table.

Table 6c. Historical Statistics for Product Classes-Value Shipped by All Producers: 1987 and Earlier Years-Con.

[Million dollars. For meaning of ebbrevietions end symbols, see introductory text. For comparebility of product clesses end product codes between 1982 end 1987 and explenation of terms, see appendixes]

1987 product code	Product cless	1987	1986¹	19851	19841	19831	1982	1977	1972
2732- 27323 27324 27325 27326 2732A 2732B 2732C 27320	Book printing Textbooks, printing end binding Technical, scientific, end professional books, printing and binding Religious books, printing end binding Generel books (trede, etc.), printing end binding Other books, n.e.c., printing end binding Books, printing only, not bound Pemphlets, printing only or printing end binding Books, printing only or printing end binding	3 240.9 515.7 589.5 141.4 709.8 642.6 120.9 132.3 388.8	3 415.2 661.5 441.0 116.2 767.3 608.6 108.1 350.6 361.9	3 246.5 571.9 431.1 110.7 762.1 585.5 116.8 332.1 336.2	2 973.9 476.7 370.7 116.3 727.9 522.4 118.3 302.4 339.1	2 730.2 360.7 364.4 100.5 637.2 364.8 115.0 218.0 569.5	2 501.9 335.1 289.5 107.3 615.4 383.6 111.8 200.8 458.4	1 830.6 - 1 670.1	1 049.9 957.7 92.2
2741-	Miscellaneous publishing	8 176.6	5 157.0	4 748.4	3 496.7	3 182.2	3 096.6	1 935.1	1 058.3
27416 27417	Telephone directories, publishingCatalogs end directories, except telephone directories, publishing	3 042.9 606.4	1 750.9	1 603.0	973.5	905.4	882.7	456.9	244.1
27418 27419	Business service publications, publishing	932.0 173.3	917.0 181.0	843.1 173.0	753.3 185.0	578.2 184.5	535.5 161.8	416.7 (²)	241.9 (²)
2741A 2741B	Shopping news, publishingOther miscellaneous publishing	774.4 863.5	1 404.0	1 262.1	1 077.7	1 024.7	1 010.5	² 727.0	² 401.1
27410	Miscellaneous publishing, n.s.k.	1 784.1	904.1	867.2	507.1	489.5	486.0	334.5	171.2

¹Figures are estimates derived from a representative sample of manufacturing establishments. Stendard errors essociated with estimates are published in annual survey of manufactures publicetions for this period.

2For 1977 and 1972, product classes 27419, 2741A, and 2741B were combined.

Table 7. Materials Consumed by Kind: 1987 and 1982

[Includes quentity and cost of materials consumed or put into production by establishments clessified only in this industry. For further explanation, see Cost of Materials in appendixes. For meaning of ebbrevietions end symbols, see introductory text]

		19	87	19	82
1987 meteriel code	Material	Quantity ¹	Delivered cost (million dollars)	Quantity ¹	Delivered cost (million dollars)
	INDUSTRY 2711, NEWSPAPERS				
	Materials, parts, and supplies	(X)	6 570.4	(X)	5 193.0
262113	Newsprint: Basis wt 30 lb	(6)	4 175.5	(0)	3 147.9
262115 262131	Other basis wtdo_ Coeted paper, ell types	(S) *914.4 (X)	4 175.5 435.3 33.5	(S) *851.8 (X)	3 147.9 409.8 8.7
262101	All other paper	(X) (X)	39.3	(X) (X)	94.9
289311 289323	Letterpress, including news	(X) (X)	59.5 126.9	(X) (X)	57.8 51.6
289305	Other, including gravure, flexographic, and screen process	(X)	9.4	(X)	6.2
386153 279610	Printing plates: Unexposed diazo lithographic plates Other lithographic plates, exposed or unexposed	(X) (X)	29.3 21.9	7 00	31.4
279631 386155	Photo-polymer (plastics) plates used for letterpress printing Light sensitive films (positives or negatives)	(X) (X)	30.6	(X) (X)	35.2
386166	Light sensitive papers, including photographic and photometallic transfer (PMT) paper	(x) (x)	58.6 27.1	(x) (x)	41.5 26.4
970099 971000	All other materials and components, parts, containers, and supplies	(X)	381.9 1 141.6	(X)	277.3 1 004.3
1987		(-1)		(4)	, 664.6
material code	Material		1987 delivered cost (million dollars)		1982 delivered cost (million dollars)
	INDUSTRY 2721, PERIODICALS				
	Materials, parts, and supplies		2 225.7		1 796.7
262111 262131 262140	Newsprint Coated papers Uncoated papers		155.6 627.4 178.9		53.2 602.9 99.9
289301 970099 971000	Printing inks (complete formulations) All other materials and components, parts, containers, and supplies		58.9 278.2		27.2 215.5
971000	Materials, parts, end supplies, n.s.k.2		926.7		798.0
	INDUSTRY 2731, BOOK PUBLISHING				
262111	Materials, parts, and supplies		1 234.2		681.9
262131 262140	Newsprint		38.9 147.2 228.7		12.4 132.4 210.1
289301 970099 971000	Printing inks (complete formulations) All other materials and components, parts, containers, and supplies Materials, parts, and supplies, n.s.k. ²		5.2 295.8 518.4		9.0 118.2 199.8
Se	ee footnotes at end of table.				

Table 7. Materials Consumed by Kind: 1987 and 1982—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendixes. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987 delivered cost (million dollars)	1982 delivered cost (million dollars)
	INDUSTRY 2732, BOOK PRINTING		
	Materials, parts, and supplies	1 090.1	815.8
262111	Newsprint	28.9	6.8
262116 262117	Uncoated paper: Sheets	115.1 236.9	76.4 168.7
262132 262134 220011 289101	Coated paper: Sheets	79.8 95.0 39.8 19.7	50.5 40.5 27.0 15.6
289311 289323 289303 289304 386153 279610 330006 279632 386101 267231 970099 971000	Printing inks: Letterpress, including news	9.4 34.5 .2 (D) 7.6 12.5 17.3 1.4 24.4 (D) 195.1 165.7	1.9 25.2 (D) 15.4 7.5 (3) 18.4 (D) 3163.9 194.9
	INDUSTRY 2741, MISCELLANEOUS PUBLISHING		
	Materials, parts, and supplies	609.2	297.8
262111 262131 262140 289301 970099 971000	Newsprint Coated papers Uncoated papers Printing inks (complete formulations) All other materials and components, parts, containers, and supplies Materials, parts, and supplies, n.s.k.2	70.8 21.2 120.5 5.6 74.5 316.6	29.4 18.2 45.9 2.3 67.3 134.7

¹For some establishments, data have been estimated from central unit values which are based on quantity-cost relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

²Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

³For 1982, material code 279632 was included in material code 970099.

APPENDIX A. Explanation of Terms

This appendix is in two sections. Section 1 includes items requested of all establishments mailed census of manufactures forms including annual survey of manufactures (ASM) forms. Note that this section also includes several items (number of establishments and companies, value added, classes of products, and specialization and coverage ratios) not included on the report forms but derived from information collected on the forms. Section 2 covers supplementary items requested only from establishments included in the ASM sample. Results of the supplementary ASM inquiries are included in table 3c of this report.

SECTION 1. ITEMS COLLECTED OR DERIVED BASED ON ALL CENSUS OF MANUFACTURES (INCLUDING ASM) REPORT FORMS

Number of establishments and companies—As discussed in the Introduction, a separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

If the company operated at different physical locations, even if the individual locations were producing the same line of goods, a separate report was requested for each location. If the company operated in two or more distinct lines of manufacturing at the same location, a separate report was requested for each activity.

An establishment not in operation for any portion of the year was requested to return the report form with the proper notation in the "Operational Status" section of the form. In addition, the establishment was requested to report data on any employees, capital expenditures, inventories, or shipments from inventories during the year.

In this report, data are shown for establishments in operation at any time during the year. A comparison with the number of establishments in operation at the end of the year will be provided in the Introduction of the General Summary subject report.

Employment and related items—The report forms requested separate information on production workers for a specific payroll period within each quarter of the year and on other employees as of the payroll period which included the 12th of March.

All employees—This item includes all full-time and part-time employees on the payrolls of operating manufacturing establishments during any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods.

Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average for the payroll periods including the 12th of March, May, August, and November.

Production workers—This item includes workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Employees above the working-supervisor level are excluded from this item.

All other employees—This item covers nonproduction employees of the manufacturing establishment including those engaged in factory supervision above the line-supervisor level. It includes sales (including driver salespersons), sales delivery (highway truck drivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office function, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical employees. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force.

In addition to reports sent to operating manufacturing establishments, information on employment during the payroll period which included March 12 and annual payrolls also was requested of auxiliary units (e.g., administrative offices, warehouses, and research and development laboratories) of multiestablishment companies. However, these figures are not included in the totals for individual

industries shown in this report. They are included in the general summary and geographic area reports as a separate category.

Payroll—This item includes the gross earnings of all employees on the payroll of operating manufacturing establishments paid in the calendar year 1987. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to proprietors or partners of unincorporated concerns. Also excluded are payments to members of Armed Forces and pensioners carried on the active payroll of manufacturing establishments.

The census definition of payrolls is identical to that recommended to all Federal statistical agencies by the Office of Management and Budget. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs, such as employees' pension plans, group insurance premiums, and workers' compensation.

The ASM provides estimates of employers' supplemental labor costs, both those required by Federal and State laws and those incurred voluntarily or as part of collective bargaining agreements. (Supplemental labor costs are explained later in this appendix.)

As in the case of employment figures, the payrolls of separate auxiliary units of multiestablishment companies are not included in the totals for individual industries or industry groups.

Production-worker hours—This item covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave.

Cost of materials—This term refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (1) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year, (2) electric energy purchased, (3) fuels consumed for heat, power, or the generation of electricity, (4) work done by

others on materials or parts furnished by manufacturing establishments (contract work), and (5) products bought and resold in the same condition. (See discussion of duplication of data below.)

Specific materials consumed—In addition to the total cost of materials, which every establishment was required to report, information also was collected for most manufacturing industries on the consumption of major materials used in manufacturing. The inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information on the establishments consuming less than a specified amount (usually \$10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which either administrative records or short forms were used was imputed as "not specified by kind." (See the introduction for the importance of administrative records in the industry.)

Value of shipments—This item covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, including not only the direct cost of production but also a reasonable proportion of "all other costs" (including company overhead) and profit. (See discussion of duplication of data below.)

Individual products—As in previous censuses, data were collected for most industries on the quantity and value of individual products shipped. In the 1987 census program, information was collected on the output of approximately 11,000 individual product items. The term "product", as used in the census of manufactures, represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term "product" as used in the marketing sense. In some cases, it may be much more detailed and, in other cases, it is more aggregative. For example, "pharmaceutical preparations" was distributed into over 100 terms; whereas, "motor gasoline" was reported as a single item.

Approximately 6,600 of the product items were listed separately on the 1987 census report forms. Data for

about 4,400 products were obtained in the monthly, quarterly, or annual surveys comprising the Current Industrial Reports series of the Census Bureau. Totals for the year 1987 for these items, as derived from the commodity surveys, are shown in the "products shipped" table (table 6a-2).

The list of products for which separate information was collected was prepared after consultation with industry and government representatives. Comparability with previous figures was given considerable weight in the selection of product categories so that comparable 1982 information is presented for most products.

Typically, both quantity and value of shipments information were collected. However, if quantity was not significant or could not be reported by manufacturers, only value of shipments was collected.

Shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments is transferred to other plants of the same company, separate information on interplant transfers also was collected. Moreover, for products that are used to a large degree within the same establishment as materials or components in the fabrication of other products, total production and often consumption of the item within the plant was collected. Typically, the information on production also was collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Other measures of output of products with long production cycles were used as appropriate and feasible.

Classes of products—To summarize the product information, the separate products were aggregated into classes of products that, in turn, were grouped into all primary products of each industry. The code structure used is a seven-digit number for the individual product, a five-digit number for the class of product, and a four-digit number for the total primary products in an industry. (See Introduction, Industry Classification of Establishments, for application of the coding structure to the assignment of SIC codes for establishments.)

In the 1987 census, the 11,000 products were grouped into approximately 1,500 separate classes on the basis of general similarity of manufacturing processes, types of materials used, and the like. However, the grouping of products was affected by the economic significance of the class and, in some cases, dissimilar products were grouped because the products were not sufficiently significant to warrant separate classes.

Duplication in cost of materials and value of shipments— The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the annual survey.

Duplication of products within individual industries is significant within a number of industry groups, e.g., machinery and transportation industries. These industries frequently include complete machinery and their parts. In this case, the parts made for original equipment are materials consumed for assembly plants in the same industry.

Even when no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs of value of shipments, both among industries and within the same industry.

Before 1962, cost of materials and value of shipments were not published for some industries which included considerable duplication. Since then, these data have been published for all industries at the United States level and beginning in 1964, for all geographic levels.

Value added by manufacture—This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments (products manufactured plus receipts for services rendered). The result of this calculation is adjusted by the addition of value added by merchandising operations (i.e., the difference between the sales value and the cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process between the beginning- and end-of-year inventories.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1a), value added is adjusted only for the change in work-in-process inventories between the beginning and end of year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

"Value added" avoids the duplication in the figure for value of shipments that results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

New and used capital expenditures—For establishments in operation and any known plants under construction, manufacturers were asked to report their new expenditures for (1) permanent additions and major alterations to

manufacturing establishments, and (2) machinery and equipment used for replacement and additions to plant capacity if they were of the type for which depreciation accounts were ordinarily maintained.

The totals for new expenditures include expenditures leased from nonmanufacturing concerns through capital leases, new facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations. Also excluded are expenditures for used plant and equipment (although reported in the census), expenditures for land, and cost of maintenance and repairs charged as current operating expenses.

Manufacturers also were requested to report the value of all used buildings and equipment purchased during the year at the purchase price. For any equipment or structure transferred for the use of the reporting establishment by the parent company or one of its subsidiaries, the value at which it was transferred to the establishment was to be reported. Furthermore, if the establishment changed ownership during the year, the cost of the fixed assets (building and equipment) was to be reported under used capital expenditures.

Total expenditures for used plant and equipment is a universe figure; it is collected on all census forms. However, the breakdown of this figure between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. The data for total new capital expenditures, new building expenditures, and new machinery expenditures, as well as the data for total used expenditures, are shown in table 3b.

End-of-year inventories—Respondents were asked to report their 1986 and 1987 end-of-year inventories at cost or market. Effective with the 1982 Economic Censuses, this change to a uniform instruction for reporting inventories was introduced for all sector reports. Prior to 1982, respondents were permitted to value inventories using any generally accepted accounting method (FIFO, LIFO, market, to name a few). In 1982, LIFO users were asked to first report inventory values prior to the LIFO adjustment and then to report the LIFO reserve and the LIFO value after adjustment for the reserve.

Because of this change in reporting instructions, the 1982 through 1987 data for inventories and value added by manufacture included in the tables of this report are not comparable to the prior-year data shown in table 1a of this report and in historical census of manufactures and annual survey of manufactures publications.

In using inventory data by stage of fabrication for "all industries" and at the two-digit industry level, it should be noted that an item treated as a finished product by an establishment in one industry may be reported as a raw material by another establishment in a different industry. For example, the finished-product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for individual industries, industry groups, and "all manufacturing", which are aggregates of figures reported by establishments in specified industries.

Specialization and coverage ratios—These items are not collected on the report forms but are derived from the data shown in table 5b. An establishment is classified in a particular industry if its shipments of primary products of that industry exceed in value its shipments of the products of any other single industry.

As noted in the introduction, an establishment's shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). Specialization and coverage ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in tables 1a through 5a and data on product shipments shown in tables 6a through 6c.

Specialization ratio represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments wherever classified.

SECTION 2. ITEMS COLLECTED ONLY ON ASM REPORT FORMS

The following items were collected only from establishments included in the ASM sample:

 Supplemental labor costs—Supplemental labor costs are divided into legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of Federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation whether they were employer initiated or the result of collective bargaining. They include the employer portion of such plans as insurance premiums, premiums for supplemental accident and sickness insurance, pension plans, supplemental unemployment compensation, welfare plans, stock purchase plans on which the employer payment is not subject to withholding tax, and deferred profit-sharing plans.

They exclude such items as company-operated cafeterias, in-plant medical services, free parking lots, discounts on employee purchases, and uniforms and work clothing for employees. While the excluded items do benefit employees and all or part of their cost generally is similar to the items covered in the ASM labor costs statistics, accounting records generally do not provide reliable figures on net employee benefits of these types.

- 2. Retirements of depreciable assets—Included in this item is the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987. When a complete operation or establishment changed ownership, the respondent was instructed to report the value of the assets sold at the original cost as recorded in the books of the seller. The respondent also was requested to report retirements of equipment or structures owned by a parent company that the establishment was using as if it were a tenant.
- 3. Depreciation charges for fixed assets—This item includes depreciation and amortization charged during the year against assets. Depreciation charged against fixed assets acquired since the beginning of the year and against assets sold or retired during the year are components of this category. Respondents were requested to make certain that they did not report accumulated depreciation.
- 4. Rental payments—Total rental payments is collected on all census forms. However, the breakdown between rental payments for buildings and other structures and rental payments for machinery and equipment is collected only on the ASM forms. This item includes rental payments for the use of all items for which depreciation reserves would be maintained if they were owned by the establishment, e.g., structures and buildings, and production, office, and transportation equipment. Excluded are royalties and other payments for the use of intangibles and depletable assets, and land rents where separable.

When an establishment of a multiestablishment company was charged rent by another part of the same company for the use of assets owned by the company, it was instructed to exclude that cost from rental payments. However, the book value (original cost) of these company-owned assets was to be reported as assets of the establishment at the end of the year.

If there were assets at an establishment rented from another company and the rents were paid centrally by the head office of the establishment, the company was instructed to report these rental payments as if they were paid directly by the establishment.

5. Depreciable assets—Total value of gross depreciable assets is collected on all census forms.

However, the detail for depreciable assets is collected only on the ASM forms. The data encompass all fixed depreciable assets on the books of establishments at the beginning and end of the year. The values shown (book value) represent the actual cost of assets at the time they were acquired, including all costs incurred in making the assets usable (such as transportation and installation). Included are all buildings, structures, machinery, and equipment (production, office, and transportation equipment) for which depreciation reserves are maintained. Excluded are nondepreciable capital assets, including inventories and intangible assets, such as timber and mineral rights.

The definition of fixed depreciable assets is consistent with the definition of capital expenditures. For example, expenditures include actual capital outlays during the year, rather than the final value of equipment put in place and buildings completed during the year. Accordingly, the value of assets at the end of the year includes the value of construction in progress. In addition, respondents were requested to make certain that assets at the beginning of the year plus new and used capital expenditures, less retirements, equalled assets at the end of the year.

- 6. New and used capital expenditures—The data for total new capital expenditures, new building expenditures, new machinery expenditures, and total used capital expenditures are collected on all census forms. However, the breakdown between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. (See further explanation on capital expenditures in section 1.)
- 7. Quantity of electric energy consumed for heat and power—Data on the cost of purchased electric energy were collected on all census forms. However, data on the quantity of purchased electric energy were collected only on the ASM forms. In addition, information was collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.
- 8. Breakdown of new capital expenditures for machinery and equipment—ASM establishments were requested to separate their capital expenditures for new machinery and equipment into (1) automobiles, trucks, etc., for highway use, (2) computers and peripheral data processing equipment, and (3) all other.

The category "automobiles, trucks, etc., for highway use" is intended to measure expenditures for vehicles designed for highway use that were acquired through a purchase or lease-purchase agreement.

Vehicles normally operating off public highways (vehicles specifically designed to transport materials, property, or equipment on mining, construction, logging, and petroleum development projects) are excluded from this item.

- 9. Foreign content of cost of materials-Establishments included in the ASM sample panel were requested to provide information on foreign-made materials purchased or transferred from foreign sources. This includes materials acquired from a central warehouse or other domestic establishment of the same company but made in an operation outside of the 50 States, District of Columbia, Puerto Rico, or U.S. territories.
- 10. Cost of purchased services—ASM establishments were requested to provide information on the cost of purchased services for the repair of buildings and other structures, the repair of machinery, and communication services. Included in the cost of purchased services for the repair of buildings and machinery are payments made for all maintenance and repair work on buildings and equipment, such as painting, roof repairs, replacing parts, and overhauling equipment. Such payments made to other establishments of the same company and for repair and maintenance of any leased property also are included. Extensive repairs or reconstruction that were capitalized are considered capital expenditures for used buildings and machinery and are, therefore, excluded from this item. Repair and maintenance costs provided by an owner as part of a rental contract or incurred directly by an establishment in using its own work force also are excluded.

Three basic approaches were utilized to produce these statistics.

1. For items 1 through 6, data were estimated (imputed) for all non-ASM establishments using the available data in the establishment record and industrybased parameters. The statistics were then generated by simply tabulating all census records including the imputed value for non-ASM establishments and the unweighted value for ASM establishments. Separate imputation rates were developed and are shown in the table. For quantity of purchased electricity for heat and power (item 7), a similar procedure was used; however, the imputation parameters were geographically-based instead of industrybased. For quantities of generated less sold electricity, no imputation was performed for non-ASM establishments. The estimates for these items are simply tabulations of unweighted ASM values.

Since the published statistics for these items were developed from the complete census universe and not just the ASM establishments, there are no sampling variances associated with these statistics. However, there is an unknown level of bias for each of the items due to the imputation of the non-ASM establishments. This bias is felt to be small due to the strong correlation between the items being imputed and the collected items that were used to generate the impute values.

2. For items 8 and 9, the estimates were developed using a ratio estimation methodology. For item 8, an estimate of the breakout of new capital expenditures for machinery and equipment into the three categories was made from ASM establishments reporting these categories. The estimated proportions were then applied to the corresponding Census value for new capital expenditures for machinery and equipment to produce the estimates.

The estimates for item 9, foreign content of cost of materials, were developed in a similar manner based on costs of parts, supplies, and components (item 5a) as the control total for the three catego-

For items 8 and 9, an adjustment ratio of the following form was computed.

$$Rj = \frac{NMc}{TMEasm}$$

where:

NMc = the census value of new capital expenditures for machinery and equipment

TMEasm = the weighted ASM value of new capital expenditures for machinery and equipment from reporters of the detailed breakout data

3. For item 10, cost of purchased services, the estimates were made by simply tabulating weighted data for all the ASM records that reported the item. A response coverage ratio (a measure of the extent to which respondents reported for each item) is shown in table 3c for the three types of services. It is derived for each item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight, see appendix B) for those ASM establishments that reported the specific inquiry to the weighted total employment for all ASM establishments classified in the industry.

APPENDIX B.

Annual Survey of Manufactures (ASM) Sampling and Estimating Methodologies

DESCRIPTION OF SURVEY SAMPLE

The Annual Survey of Manufactures (ASM) contains two components. The mail portion of the survey is a probability sample of about 56,000 manufacturing establishments selected from a total of about 220,000 establishments. These 220,000 establishments represent all manufacturing establishments of multiunit companies and all single establishment companies mailed schedules in the 1982 Census of Manufactures. This mail portion is supplemented annually by a Social Security Administration list of new manufacturing establishments opened after 1982 and a list of new multiunit manufacturing establishments identified from the Census Bureau's Company Organization Survey.

The 1984 through 1988 ASM sample differs slightly from the previous sample. For the current panel, all establishments of companies with 1982 shipments in manufacturing in excess of \$500 million were included in the survey panel with certainty. There are approximately 500 such companies collectively accounting for approximately 18,000 establishments. For the remaining portion of the mail survey, the establishment was defined as the sampling unit. For this portion, all establishments with 250 employees or more and establishments with a very large value of shipments also were included in the survey panel with certainty. A total of 12,100 establishments were selected from this portion of the universe with certainty. Therefore, of the 56,000 manufacturing establishments included in the ASM panel, approximately 31,000 are selected with certainty. These certainty establishments collectively account for approximately 80 percent of the total value of shipments in the 1982 census.

Smaller establishments in the remaining portion of the mail survey were sampled with probabilities ranging from 0.999 to 0.005 in accordance with mathematical theory for optimum allocation of a sample. The probabilities of selection assigned to the smaller establishments were proportional to measures of size determined for each establishment. The measures of size depend directly upon each establishment's 1982 product class values and the historic variability of the year-to-year shipments of each product class. Product classes displaying more volatile year-to-year change in shipments at the establishment level were sampled at a heavier rate.

This method of assigning measures of size was used in order to maximize the precision (that is, minimize the variance of estimates of the year-to-year change) in the value of product class shipments. Implicitly, it also gave weight differences in employment, value added, and other

general statistics, since these are highly correlated with value of shipments. Individual sample selection probabilities were obtained by multiplying each establishment's final measure of size by an overall sampling fraction coefficient calculated to yield a total expected sample size.

The sample selection procedure gave each establishment in the sampling frame an independent chance of selection. This method of independent selection permits the rotation of small establishments out of a given sample panel without introducing a bias into the survey estimates.

The nonmail portion of the survey includes all singleestablishment companies that were tabulated as administrative records in the 1982 Census of Manufactures. Although this portion contained approximately 130,000 establishments, it accounted for less than 2 percent of the estimate for total value of shipments at the total manufacturing level. This portion was not sampled; rather, the data for every establishment in this group were estimated based on selected information obtained annually from the administrative records of the Internal Revenue Service and the Social Security Administration. This administrative-record information, which includes payroll, total employment, industry classification, and physical location of the establishment, was obtained under conditions which safeguard the confidentiality of both tax and census records. Estimates of data other than payroll and employment for these small establishments were developed from industry averages.

The corresponding estimates for the mail and nonmail establishments were added together, along with the base-year differences, as defined in the Description of Estimating Procedure section, to produce the figures shown in this publication.

DESCRIPTION OF ESTIMATING PROCEDURES

Most of the ASM estimates for the years 1983-1986 were computed using a difference estimation procedure. For each item, a base-year difference was developed. This base-year difference is equal to the difference between the 1982 census published number for an item total and the linear ASM estimate of the total for 1982. The ASM linear estimate was obtained by multiplying each sample establishment's data by its sample weight (the reciprocal of its probability of selection) and summing the weighted values.

These base-year differences were then added to the corresponding current-year linear estimates, which include the sum of the estimates for the mail and nonmail establishments, to produce the estimates for the years 1983-1986. Estimates developed by this procedure usually are far more reliable than comparable linear estimates developed from the current sample data alone.

The 1987 sample estimates for the purchased service items, shown in table 3c, are strictly ASM linear estimates, however, developed only from ASM establishments that reported the specific item.

The remaining estimates in table 3c, showing the break-down of expenditures for new machinery and equipment and costs of parts (separated into purchases from foreign sources and purchases from domestic sources), were computed as ratio estimates. To do this, linear estimates of the new machinery detail items were developed from the ASM establishments and were ratio adjusted to the corresponding census total for new machinery. In a similar fashion, the ASM linear estimates of the detailed purchased materials items were ratio adjusted to the corresponding census total for cost of parts.

QUALIFICATIONS OF THE DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sampled lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the differences between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of the estimates.

The particular sample selected for the ASM is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretical, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected statistics in this report. They are presented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, completecoverage value for specified percentages of all the possible samples).

The complete coverage value would be included in the range:

- From one standard error below to one standard error above the derived estimate for about twothirds of all possible samples.
- From two standard errors below to two standard errors above the derived estimate for about 19 of 20 of all possible samples.
- From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable, complete-survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown as 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total and almost certain confidence that the interval 47,000 to 53,000 includes the complete coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected in the course of the Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or only moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown.

The concept of complete coverage under the conditions prevailing for the ASM is not identical to the complete coverage of the census of manufactures, as the censuses have been conducted. Nearly all types of operational errors that affect the ASM also occur in the censuses. The ASM and the censuses, are conducted under quite different conditions, and operational errors can be better controlled in the ASM than in the censuses. As a result, for many of the census figures, the errors are of the same order of size as the total errors of the corresponding annual survey estimates. The differences between the census and ASM operating conditions also disturb, to some degree, the comparability of the ASM and census data.

Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be of limited reliability. However, the figure may be combined with higher-level totals, creating a broader aggregate, which then may be of acceptable reliability.

APPENDIX C. Changes in Census of Manufactures Product Classes for 1987

[Based on revisions to the Standard Industrial Classification (SIC) Manual definitions of some product classes were revised for 1987. Listed below are the revisions to the product classes]

1987	1982	1987	1982	1987	1982	1987	1982
011B	2011A 2013A pt	20866—Con.	20861 pt—Con. 20995 pt	2221F—Con.	22211 pt—Con. 22212 pt 22213 pt	23259—Con.	23279 — Con. 23289 pt
)135	20130	20910	20324 pt 20910		22214 pt 22215 pt	23260	23280
)13B	2013A pt	20925	20924		22216 pt 22217 pt	23261	23281
150	20160 20170	20926	20024	2221G	22211 pt	23262	23284
)151	20161	20961 20962	20992		22212 pt 22213 pt 22214 pt	23269	23289 pt
0152	20171	20963	20981 pt		22215 pt 22216 pt 22217 pt	23293	23271 pt 23292
1153	20172	20997	20341 pt 20440 pt	2221H	22211 pt	23530	23510 pt 23520
1155	20173		20982 2099A pt		22212 pt 22213 pt 22214 pt	23531	23521
154	20164 20174	20999	2099B pt		22215 pt 22216 pt	23532	23522
155	20165	2099D	20995 pt		22217 pt	23533	23510 pt
	20175	2099E	2099C	2221J	22218	23692	23631
159	20179	2099F 2099G	20981 pt	2221K	22219	23693	23691
226	20220	2211B	22111 pt	2221M	2221A	23699	23619
)239	20239 2099A pt		22112 pt 22113 pt 22114 pt	22510	22510 pt	23813	23699 23811 pt
267	20266 pt 2099B pt		22115 pt 22116 pt	22514	22512 pt	23813	23811 pt 23812 pt
1268	20266 pt	2211C	22111 pt	22518	22517 pt	23814	23811 pt 23812 pt
	2099B pt		22112 pt 22520 22510 pt 22520 22520 22510 pt 22520 22520 22520 22520 22520 22520 22520 22520 22522 pt 22523	22520 pt 22520	23952	23951 pt	
324	20324 pt			22525	22512 pt 22523	23958	23959
343	20341 pt	- 2211D	22111 pt	22526	22517 pt	23964	23951 pt
380	20380 pt		22112 pt 22113 pt 22114 pt		22524	24930	24920 pt
384	20381 pt 20383 pt		22114 pt 22115 pt 22116 pt	22585	22920 pt		26610
415	20383 pt .	2211E	22111 pt	22589	22589 22920 pt	24931	24920 pt
440	20415 20440 pt		22112 pt 22113 pt 22114 pt	22730	22710 pt 22720 pt	24932	24920 pt 24993
450	20383 pt	-	22115 pt 22116 pt		22790 pt	24934	24995
450	20450	2211F	22117	22731	22710 pt	24935	26611
470	20470 pt	2211G	22119	22732	22720 pt	24936	24998
1480	20470 pt 20480	2211H	2211A	22733	22790 pt	24937	24995
)48A	20475	2221B	22211 pt	22815	22833	24994	24995 2499A pt
1530	20476 20380 pt		22212 pt 22213 pt 22214 pt	22822	22822 22830	25115	25115
	20381 pt		22215 pt 22216 pt 22217 pt	22991	22910	25145	25158
640	20650 pt	2221C		22994	22940	25145	25141 25142
0642	20652	- 22210	22211 pt 22212 pt 22213 pt	22995	22930	25146	25143
0643	20653		22214 pt 22215 pt	22996	22992	25147	25144
0649	20659		22216 pt 22217 pt		22993	25425 25991	25990
0660	20660 20990 pt	2221D	22211 pt	23219	23219 pt	25992 25994	
1669	20668		22212 pt 22213 pt 22214 pt	23221	23220	2621B	26612
1680	20998 20341 pt		22215 pt - 22216 pt	23222	23215	26560	26540
0680	20341 pt 20650 pt 20657	22215	22217 pt	23229	23219 pt 23229	26561	26541
0863	20861 pt	2221E	22211 pt 22212 pt 22213 pt	23250	23270	26562	26542
0864 0865			22214 pt 22215 pt	23251	23271 pt	26563	26 545
		_	22216 pt 22217 pt	23252	23283	26570	26510

1987	1982	1987	1982	1987	1982	1987	1982
6710	26410 pt	26753	26455	27591	27511 pt	28350—Con. 28351	2831ACon.
6711	26415	26760	26470	27592	27512 pt	28352	
6712	26416	26761	26471	27593	27513 pt	28360	28310
6713	26419	26763	26473	27594	27514 pt	28361	28311
6714	2641A	26764	26474	27595	27515 pt	28362	28312
6720 .	26410 pt	26770	26420	27596	27516 pt	28363	28317
6720 .	26411	26780	26480	27597	27511 pt 27512 pt 27513 pt	28364	28318 28319
3722	26413	26781	26481		27514 pt 27515 pt	28656	2911C
		26782	26482		27516 pt	28691	2911B
5723 	26414	26790	26460 pt	27598	27519	28916	28915
6724	2641B		26490	27599	27531	28917	20010
3730	26430 pt	26791	26493	2759A	27510 pt	2911D	2911D pt
731	26435	26792	26494	27960 .	27530 27950	29990	2911D pt 29990
5732	26436	26793	26496				
5733	26437	26794	26460 pt	27961	27951 35557 pt	31430	31430 31433 31434
6740	26430 pt	26795	26497	27962	27952		31435
3741	26434	27416 27417	27411	27963	27532 27547	31440	31440 31445
6742	26438	27418	27412		27930 27940		31446 31447 31448
6750	26450	27419	27414	28247	28243 28245	31490	31490
6751	26453	2741A 2741B	27415	28248	28246	-	31491 31493 31495
6752	26454	27590	27510 pt	28350	2831A		31496 31497

APPENDIX D. Changes in Census of Manufactures Product Codes for 1987

[Based on revisions to the Standard Industrial Classification (SIC) Manual, definitions of some product codes were revised for 1987. Listed below are the revisions to the product codes. The terms published and collected are defined as follows: (1) published refers to the code used in the published reports for 1987 and 1982, and (2) collected refers to the code appearing on the report forms for 1987]

report forms fo	r 1987]					,					
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published
20119 14	20119 14	20119 12 20119 13	20159 17	20179 17	20179 17	20343 21	20341 21	20341 21	20488 21	20488 21	20488 18
2011B 15	2011B 15	2011A 15	20159 51	20179 51	20179 51	20343 23	20341 23	20341 23	20488 23	20488 23	20488 17 pt
2011B 41	2011B 41	2011A 41	20159 53	20179 53	20179 53	20343 29	20341 29	20341 29	20488 25	20488 25	20488 19 pt
2011B 55	2011B 55	2011A 55	20159 55	20179 55	20179 55	20343 31	20341 31	20341 32 20341 33	20488 31	20488 31	20488 17 pt
2011B 99	2011B 99	2011A 31	20159 57	20179 57	20179 57	00050.04	20050.04	20341 35	20488 33	20488 33	20488 19 pt
20135 13	20135 13	2011A 51 20130 00	20226 00	20220 11	20220 00	20352 31 20352 34	20352 31 20352 34	20352 33	2048A 01	20475 35	20475 35
20135 17	20135 17	20130 00	20235 22	20235 22	20235 28 pt	20354 35	20354 35	20354 31 20354 33 20354 39	2048A 03	20475 52	20475 52
20151 33	20161 33	20161 33	20235 29	20235 29	20235 21 20235 28 pt	00000 00	20000 00		2048A 05 2048A 07	20476 63	20476 61
20151 34	20161 34	20161 34	20239 23	20239 23	20239 29 pt	20382 26 20382 28	20382 26 20382 28	20382 27	2048A 09	20476 65	20476 65
20151 36	20161 36	20161 36	20239 25	2099A 12	2099A 11 pt	20384 51	20383 51	20383 51	2048A 11	20476 67	20476 67
20151 39	20161 39 20171 39	20161 39 20171 39	20239 28	20239 28	20239 29 pt	20384 59	20383 59	20383 59	2048A 13	20476 69	20476 69
20151 41	20161 41 20171 41	20161 41 20171 41	20239 32	20239 32	20239 31	20384 63	20383 63	20381 18	20512 39	20512 39	20512 38
20152 21	20162 21	20162 21	20239 38	20239 38	20239 37 20239 39	20384 69	20383 69	20383 61 pt	20512 40 20512 42	20512 40 20512 42	
	20172 21	20172 21	20240 31	20240 31	20240 98 pt	20411 26	20411 26	20411 24 20411 25	20530 11	20381 11	20381 11
20152 23	20162 23 20172 23	20162 23 20172 23	20240 52	20240 52	20240 51	20412 19	20412 19	20412 00 20412 17	20530 13	20381 13	20381 13
20153 22	20163 22 20173 22	20163 21 pt 20173 21 pt	20240 54	20240 54	00040 08 -4	20415 91	20383 65	20383 61	20530 14	20381 14	20381 14
20153 24	20163 24	20163 23 pt	20240 99	20240 99 2099B 11	20240 98 pt 2099B 11	20415 93	20383 66		20530 17	20381 17	20381 17
	20173 24	20173 23 pt	20267 13	2099B 13	2099B 13	20430 21 20430 23	20430 21 20430 23	20430 19	20530 19	20381 19	20381 19
20153 26	20163 26 20173 26	20163 25 pt 20173 25 pt	20267 14	2099B 14	2099B 19 pt	20430 55	20430 55	20430 52 pt	20642 00	20652 00	20652 00
20153 27	20163 27	20163 21 pt 20163 23 pt	20267 16	2099B 16		20430 57	20430 57	20430 53 pt	20643 00	20653 00	20653 00
	20173 27	20163 25 pt 20173 21 pt	20267 17	20267 17	20266 17	20430 61	20430 61	20430 59 pt	20649 21	20659 21	20659 21
		20173 23 pt 20173 25 pt	20267 18	2099B 18	2099B 19 pt	20430 63	20430 63	20430 52 pt 20430 53 pt	20649 76	20659 76	20659 76
20154 14	20164 14 20174 14	20164 14 20174 14	20268 13	2099B 51	2099B 51	-		20430 59 pt	20003 11	20998 11	20998 11
20154 16	20164 16	20164 16	20268 15	20268 15	20266 15	20450 91 20450 93	20383 67 20383 68	20383 61	20669 21	20668 21 20998 21	20668 21 20998 21
20155 11	20174 16	20174 16	20324 97	20324 97	20324 98	20464 72 20464 75	20464 72 20464 70	20464 69	20669 63	20668 63 20998 63	20668 63 20998 63
	20175 11	20175 11	20324 99	20324 99	20224 71	20481 21	20481 21	20481 13 pt	20669 71	20668 71	20669 71
20155 13	20165 13 20175 13	20165 13 20175 13	20331 13	20331 13	20331 71	20481 22	20481 22	20481 17 pt		20998 71	20998 71
20155 15	20165 15 20175 15	20165 15	20331 36	20331 36	20331 73	20481 23	20481 23	20481 26 pt	20669 75	20668 75 20998 75	20668 75 20998 75
20155 31	20165 31	20175 15	20331 38	20331 38	20331 74	20481 24	20481 24	20481 28 pt	20669 81	20668 81	20668 81
	20175 31	20175 31	20331 41	20331 41	20331 75	20481 31	20481 31	20481 13 pt	20669 92	20668 92 20998 92	20668 92 20998 92
20155 32	20165 32 20175 32	20165 32 20175 32	20332 05	20332 05	20332 08	20481 32	20481 32	20481 17 pt	20669 93	20668 93	20668 93
20155 33	20165 33 20175 33	20165 33 20175 33			20332 09 20332 92	20481 33	20481 33	20481 26 pt	20669 95	20998 93	20998 93
20155 34	20165 34	201/5 33	20332 37	20332 37	20332 96	20481 34	20481 34	20481 28 pt	20009 95	20668 95 20998 95	20998 95
	20175 34	20175 34	20336 14	20336 14	20336 13	20483 01 20483 02	20483 01 20483 02	20483 00	20670 11 20670 14	20670 11 20670 14	20670 12
20155 39	20165 39 20175 39	20165 39 20175 39	20336 15 20336 31	20336 15 20336 31	20336 19	20485 03 20485 04	20485 03 20485 04	20485 00	20680 13	20657 13	20657 13
20155 48	20165 48	20165 48	2033B 21	2033B 21	2033B 00	20487 05	20487 05	20487 00	20680 15	20657 15	20657 15
20159 11	20175 48	20175 48	20343 13	20341 13	20341 13	20487 06	20487 06		20680 17	20657 17	20657 17
	20175 []	20179 11	20343 15	20341 15	20341 15	20488 11	20488 11	20488 14	20680 33	20657 33	20657 33
20159 13	20179 13	20179 13				20488 12	20488 12	20488 15			

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report forms to	(1907]												
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published		
20680 37	20657 37	20657 37	20863 20— Con.	20863 20 — Con.	20863 01— Con.	20922 27 20922 28	20922 27 20922 28	20922 29	2099E 33	2099E 33	2099C 33		
20680 53	20657 53	20657 53	-		20863 36 20863 37	20922 31	20922 31		2099E 38	2099E 38	2099C 38		
20680 55	20657 55	20657 55	-		20863 38 20863 39 20863 42	20923 11 20923 13	20923 11 20923 13	20923 21	2099E 39	2099E 39	2099C 39		
20680 57	20657 57	20657 57	-		20863 44 20863 45	20923 15	20923 15	20923 22	2099F 44	2099F 44	2099C 44		
20680 61	20657 61	20657 61	-		20863 47	20923 17	20923 17	20320 22	2099F 46	2099F 46	2099C 46		
20740 98	20740 98	20740 00	20863 30	20863 30	20861 01 pt 20861 03 pt	20923 19	20923 19	20923 23	2099G 11	2099G 11	2099C 11		
20750 98	20750 98	20750 00			20861 07 pt 20861 10 pt 20861 11 pt	20923 31 20923 33	20923 31 20923 33	20923 26	2099G 25	2099G 25	2099C 25		
20760 94 20760 95	20760 94 20760 95	20760 00			20861 12 pt 20861 13 pt	20923 35	20923 35	20923 28	2099G 51	2099G 51	2099C 51		
20760 96 20760 97 20760 98	20760 96 20760 97 20760 98				20861 14 pt 20861 15 pt 20861 16 pt			20923 29	2099G 85	2099G 85	2099C 85		
	20821 01	20821 14	-		20861 17 pt	20925 21	20925 21	20924 21	2099G 91	2099G 91	2099C 91		
20821 01	2002101	20821 19 pt 1 02 20821 15 20821 19 pt 1 03 20821 18			20861 18 pt 20861 19 pt	20925 22	20925 22	20924 22	2099G 98	2099G 98	2099C 98		
20821 02	20821 02				20861 20 pt 20861 21 pt 20861 22 pt	20925 23	20925 23	20924 33 pt	2211B 00	2211B 00	22111 00 pt 22112 00 pt		
20821 03	20821 03		-		20861 23 pt 20861 24 pt	20925 24	20925 24	20924 24			22113 00 pt 22114 10 pt		
		20821 19 pt	1		20861 26 pt 20861 27 pt	20925 25	20925 25	20924 25			22114 50 pt 22115 00 pt		
20824 99	20824 99	20824 71 20824 81			20861 28 pt 20861 29 pt	20925 26	20925 26	20924 26	20110 00	00110 00	22116 00 pt		
		20824 91	-		20861 31 pt 20861 32 pt	20925 31	20925 31	20924 31	2211C 00	2211C 00	22111 00 pt 22112 00 pt 22113 00 pt		
20840 45 20840 46	20840 45 20840 46	20840 43			20861 33 pt 20861 34 pt 20861 36 pt	20925 32	20925 32	20924 32			22114 10 pt 22114 30 pt		
20851 48	20851 48	20851 41			20861 37 pt 20861 38 pt	20925 33	20925 33	20924 33 pt			22114 50 pt 22115 00 pt		
		20851 45 20851 49			20861 39 pt 20861 42 pt	20925 34	20925 34	20924 34			22116 00 pt		
20863 10	20863 10	20861 01 pt 20861 03 pt	!		20861 44 pt 20861 45 pt 20861 47 pt	20925 35	20925 35	20924 35	2211D 00	2211D 00	22111 00 pt 22112 00 pt		
		20861 03 pt 20861 07 pt 20861 10 pt	20064 10	20864 10	20861 51	20925 36	20925 36	20924 36			22113 00 pt 22114 10 pt 22114 30 pt		
		20861 11 pt 20861 12 pt 20861 13 pt 20861 14 pt	20864 10		20861 52 20861 53 20861 55 20861 56	20926 11 20926 13 20926 98	20926 11 20926 13 20926 98	20924 98			22114 50 pt 22115 00 pt 22116 00 pt		
		20861 15 pt 20861 16 pt 20861 17 pt			20861 57 20861 58 20861 59	20951 15	20951 15	20915 18 20951 17	2211E 00	2211E 00	22111 00 pt 22112 00 pt 22113 00 pt 22114 00		
		20861 18 pt 20861 19 pt	20861 18 pt 20861 19 pt	20861 18 pt 20861 19 pt	20865 01	20865 01	20861 81 pt	20961 00	20992 13	20992 12			22114 10 pt 22114 30 pt
		20861 20 pt 20861 21 pt 20861 22 pt	20865 02 20865	00005.00	20861 83 pt	20980 21	20981 21	20981 21	2211F 00	2211F 00	22114 50 pt 22116 00 pt 22117 00		
		20861 22 pt 20861 23 pt 20861 24 pt 20861 25 20861 26 pt	20865 02		20861 81 pt 20861 83 pt 20862 88 pt 20862 89 pt	20980 31	20981 31	20981 31					
			20066.01	20866 01		20997 13	2099A 13	2099A 11 pt			22117 11 22117 31 22117 51		
		20861 27 pt 20861 28 pt	20866 02	20866 02	20862 85	20997 21	2099A 21	2099A 21			22117 61		
		20861 29 pt 20861 31 pt	2000000	20000 02	20862 86 20862 88 pt	20997 31	2099A 31	2099A 31	2211G 10 2211G 30	2211G 10 2211G 30	22119 00		
		20861 32 pt 20861 33 pt			20862 89 pt	20997 41	2099A 41	2099A 41	2211H 37	2211H 37	2211A 37		
		20861 34 pt 20861 36 pt 20861 37 pt	20866 03	20866 03	20862 91	20997 61	20341 36	20341 36	2211H 42	2211H 42	2211A 42		
		20861 38 pt	20866 04 20866 05	20866 04 20866 05	20861 93	20997 71	20440 19	20440 19	2211H 43	2211H 43	2211H 43		
		20861 39 pt 20861 42 pt	20866 06	20866 06	20861 83 pt	20997 81	20982 35	20982 35	2211H 44	2211H 44	2211A 44		
		20861 44 pt 20861 45 pt 20861 47 pt	20866 07	20995 85	20995 85	20997 85	20982 41	20982 41	2211H 46	2211H 46	2211A 46		
20863 20	20863 20	20863 01	20866 09	20866 09	20860 00	20997 98	2099A 98	2099A 98	2211H 62	2211H 62	2211A 62		
20000 20	2000 20	20863 03 20863 07	20873 21	20873 21	20873 13 pt	20999 21	2099B 21	2099B 21	2211H 65	2211H 65	2211A 65		
		20863 10 20863 12			20873 39 pt	20999 31	2099B 31	2099B 31	2211H 67	2211H 67	2211A 67		
		20863 13 20863 14 20863 15	20873 23	20873 23	20873 13 pt 20873 39 pt	20999 35	2099B 35	2099B 98 pt	2211H 69	2211H 69	2211A 69		
		20863 16 20863 17	20873 25	20873 25	20873 13 pt 20873 39 pt	20999 41	2099B 41 2099B 53	2099B 41 2099B 98	2211H 73 2211H 75	2211H 73 2211H 75	2211A 75		
		20863 18 20863 19 20863 20 20863 21	20873 41	20873 41	20873 13 pt 20873 39 pt	20999 55 20999 98	2099B 55 2099B 99		2221B 00	2221B 00	22211 00 pt 22212 00 pt		
		20863 22 20863 23	20873 43	20873 43	20873 13 pt 20873 39 pt	2099D 82	20995 82	20995 82			22213 00 pt 22214 00 pt 22215 00 pt		
		20863 24 20883 26 20863 27	20873 45	20873 45	20873 13 pt 20873 39 pt	2099D 83 2099D 86	20995 83	20995 83	-		22215 00 pt 22216 00 pt 22217 10 pt		
		20863 28 20863 29	20910 19	20324 11	20873 39 pt 20324 98 pt	2099E 31	20995 86 2099E 31	20995 86 2099C 31	00010.55	00010.00	22217 30 pt		
		20863 31 20863 32 20883 34	20310 19	20910 19	20324 98 pt 20910 19	20392 31	20380 31	20330 31	2221C 00	2221C 00	22214 00 pt 22215 00 pt 22216 00 pt		

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report forms to			1			1					
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 coilected	1982 published
2221C 00 — Con.	2221C 00— Con.	22214 00 pt —Con.	22514 37	22512 37	22512 37	22840 51	22840 51	22840 15 pt 22840 28 pt	23531 01	23521 15	23521 15
		22217 10 pt 22217 30 pt	22514 39	22512 39	22512 36 22512 38	22840 61	22840 61	22840 35	23531 03	23521 41	23521 41
2221D 00	2221D 00	22211 00 pt 22212 00 pt	22514 45	22512 45	22512 45	22950 00 22950 98	22950 00 22950 98	22950 00	23531 05	23521 83	23521 83
		22213 00 pt 22214 00 pt	22518 14	22517 14	22517 15 pt	22991 00	22910 00 pt	22910 00 pt	23531 09	23521 91	23521 91
		22215 00 pt 22216 00 pt 22217 10 pt	22518 17	22517 17	22517 17	22991 12	22910 00 pt	22910 11	23532 01	23522 12	23522 12
		22217 10 pt	22525 11	22523 11	22523 11	22991 13	22910 13	22310 11	23532 03	23522 15	23522 15
2221E 00	2221E 00	22211 00 pt 22212 00 pt	22525 15	22512 11	22512 11	22991 15 22991 17	22910 15 22910 17	22910 19	23532 05	23522 17	23522 17
		22213 00 pt 22214 00 pt	22525 17	22523 17	22523 17	22991 21	22910 21	22910 00	23532 09	23522 98	23522 98
		22215 00 pt 22216 00 pt 22217 10 pt	22525 21	22523 21	22523 21	22991 23	22910 23		23533 01	23510 12	23510 12
		22217 10 pt 22217 30 pt	22525 27	22523 27	22523 27	22991 35	22910 35	22910 36 22910 38	23533 03	23510 41	23510 41
2221F 00	2221F 00	22211 00 pt 22212 00 pt	22525 31	22523 31	22523 31	22991 47	22910 47	22910 47	23533 09	23510 93	23510 93
		22213 00 pt 22214 00 pt	22525 51	22523 51	22523 51	22994 22	22940 22	22940 14 pt 22940 21 pt	23613 00	23613 00	23611 30 pt 23612 00
		22215 00 pt 22216 00 pt 22217 10 pt	22525 57	22523 57	22523 57	22994 31	22940 31	22940 14 pt	23614 00	23614 00	23611 30 pt
		22217 30 pt	22525 61	22523 61	22523 61	22004 01		22940 21 pt	23615 00	23615 00	23611 10
2221H 10	2221H 10	22211 00 pt 22212 00 pt	22525 81	22523 81	22523 81	22994 35	22940 35	22940 14 pt 22940 21 pt	23692 00	23631 00	23631 00
		22213 00 pt 22214 00 pt 22215 00 pt	22526 25	22524 25	22524 25	22994 39	22940 39	22940 14 pt	23693 40	23691 40	23691 40
		22216 00 pt 22217 10 pt	22526 42	22517 13 22524 41	22517 15 pt 22524 41			22940 28	23693 70	23693 70	23691 70
		22217 30 pt	22526 51	22524 51	22524 51	22994 41	22940 41	22940 41	23693 80 23693 93	23691 80 23691 93	23691 92
2221H 20	2221H 20	22211 00 pt 22212 00 pt	22585 00	22920 00	22920 00	22995 17	22930 17	22930 17	23813 00	23813 00	23811 00 pt
		22213 00 pt 22214 00 pt 22215 00 pt	22617 00	22617 00	22617 11	22995 19	22930 19	22930 19			23812 00 pt
		22216 00 pt 22217 10 pt			22617 31 22617 51 22617 61	22995 32	22930 32	22930 32	23814 00	23814 00	23811 00 pt 23812 00 pt
	0004400	22217 30 pt	22619 00	22619 00	22619 11	22995 35	22930 35		23910 10	23910 10	23910 11 pt 23910 17 pt
2221J 00	2221J 00	22218 00 22218 15 22218 25 22218 35 22218 38			22619 31 22619 51	22995 57	22930 57	22930 57			23910 18 pt 23910 51 pt
					22619 71	22996 01	22996 01	22992 61			23910 57 pt 23910 58 pt
		22218 55 22218 58	22628 00	22628 00	22628 20 22628 30 22628 50	22996 03	22996 03	22992 75	23910 12	23910 12	23910 11 pt
		22218 64 22218 67			22628 61	22996 10	22996 10	22993 40	23910 19 23910 21	23910 19 23910 21	23910 17
2221K 00	2221K 00	22219 15 22219 25	22629 00	22629 00	22629 20 22629 30	22996 11	22996 11	22993 50	23910 25	23910 21	23910 18 pt
2221M 21	2221M 21	2221A 21			22629 50 22629 61	23213 00	23213 00	23212 00 23214 00 pt	23910 52	23910 52	23910 51 pt
		2221A 22	22731 00	22710 00	22710 00	23216 00	23216 00	23214 00 pt	23910 59	23910 59	23910 57
2221M 23	2221M 23	2221M 23 2221M 24	22732 20	22720 20	22720 20	23222 00	23215 00	23215 00	23910 61	23910 61	
2221M 25	2221M 25	2221A 25 2221A 26	22732 40	22720 40	22720 40	23229 11	23229 93	93000 00	23910 62	23910 62	23910 58 pt
2221M 27	2221M 27	2221A 27	22733 00	22790 00	22790 00	23229 12	23219 15	23219 15	23921 11	23921 11	23921 12 pt 23921 13 pt
		2221A 28	22815 10	22833 10	22831 00	23251 00	23271 11	23271 00			23921 15 pt 23921 17 pt 23921 18 pt
2221M 33	2221M 33	2221A 33 2221A 37	22815 20	22833 20	22833 20	23252 00	23283 00	23283 00			23921 19 pt 23921 27 pt
2221M 41	2221M 41	2221A 41 2221A 44	22822 21 22822 31	22822 21 22822 31	22822 00	23259 11	23279 13	23279 00 pt			23921 28 pt 23921 29 pt
2221M 42	2221M 42	2221A 44 2221A 42	22823 11	22823 11	22823 27 pt 22823 32 pt	23259 12	23289 11	23289 11	23921 14	23921 14	23921 12 pt
		2221A 45			22823 35 pt	23261 00	23281 00	23281 00	23921 16	23921 16	23921 13 pt 23921 15 pt
2221M 43	2221M 43	2221A 43 2221A 46	22823 13	22823 13	22823 27 pt 22823 32 pt	23262 00	23284 00	23284 00	23921 20	23921 20	23921 17 pt
2221M 47	2221M 47	2221A 47	22022 45	00000 45	22823 35 pt	23269 00	23289 13	23289 13	23921 21	23921 21	23921 18 pt
2221M 71	2221M 71	2221A 48 2221A 71 pt	22823 15	22823 15	22823 27 pt 22823 32 pt 22823 35 pt	23299 11	23279 11	23279 00 pt 93000 00	23921 24	23921 24	23921 19 pt
	CCC IIVI / I	2221A 71 pt 2221A 72 pt	22840 31	22840 31	22840 15 pt	23299 13	23299 93	25512 00	23321 24	23921 24	23921 23 23921 25
2221M 77	2221M 77	2221A 71 pt 2221A 72 pt	22840 33	22840 33	22840 28 pt	20010 00		23317 00 pt	23921 30	23921 30	23921 27 pt
22514 17	22512 17	22512 17	22840 41	22840 41	22840 15 pt	23314 00	23314 00	23317 00 pt	23921 31	23921 31	23921 28 pt 23921 29 pt
22514 21	22512 21	22512 21	22840 43	22840 43	22840 28 pt	23413 00	23413 00	23413 30 23413 31	23923 10	23923 10	23923 00
					-				23923 13	23923 13	

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1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published
23924 12	23924 12	23924 11 pt 23924 13 pt 23924 39 pt	24112 28	24112 28	24112 11 24112 15 24112 20	24363 98	24363 98	24363 01 pt 24363 03 pt	24994 14— Con. 24994 16	2499A 14— Con. 2499A 16	2499A 13 pt —Con. 2499A 15 pt
23924 14	23924 14	23924 11 pt 23924 13 pt			24112 22 24112 27 pt	24367 00	24367 00	24367 01 24367 03	24994 17	2499A 17	2499A 17
		23924 39 pt	24113 11 24113 13	24113 11 24113 13	24113 00	24411 27	24411 27	24411 25 24411 51	24994 19	2499A 19	2499A 19
23924 16	23924 16	23924 11 pt 23924 13 pt 23924 39 pt	24114 08 24114 10	24114 08 24114 10	24114 11	24411 63	24411 63	24411 65 24411 83	24994 23	2499A 23	2499A 23
23924 33	23924 33	23924 31 pt 23924 39 pt	24114 12 24114 14	24114 12 24114 14	24114 13	24522 17	24522 17	24522 21	24994 25	2499A 25 2499A 41	2499A 25 2499A 41
23924 35	23924 35	23924 31 pt	24114 16	24114 16	24114 17 pt	24522 19	24522 19	24012.11	24994 51	2499A 51	2499A 51
23924 36	23924 36	23924 39	24114 18	24114 18	24114 19 pt	24912 01 24912 03 24912 05	24912 01 24912 03 24912 05	24912 11	24994 54	2499A 54	2499A 53
23924 37	23924 37	23924 44 pt	24114 22	24114 22	24114 17 pt	24912 07	24912 07				2499A 55
		23924 45 pt 23924 47 pt	24114 24	24114 24	24114 19 pt	24912 09 24912 12	24912 09 24912 12	24912 13	24994 57	2499A 57	2499A 57
23924 38	23924 38	23924 49 pt 23924 44 pt	24114 29 24114 33	24114 29 24114 33	24114 31	24912 14 24912 16	24912 14 24912 16		24994 58	2499A 58	2499A 59 2499A 60
		23924 45 pt	24114 35	24114 35		24913 01 24913 03	24913 01 24913 03	24913 11	24994 61	2499A 61	2499A 61
23924 40	23924 40	23924 47 pt 23924 49 pt	24211 61 24211 63	24211 61 24211 63	24211 71	24913 05	24913 05	24913 13	24994 62	2499A 62	2499A 62
23924 41	23924 41	23924 41	24211 65	24211 65		24913 07 24913 09	24913 07 24913 09		24994 71	2499A 71	2499A 71
		23924 44 pt 23924 45 pt	24211 75 24211 77	24211 75 24211 77	24211 73	24913 12 24913 14	24913 12 24913 14		24994 75	2499A 75	2499A 75
23924 43	23924 43	23924 47 pt	24212 31	24212 31	24212 22 pt	24919 01	24919 01	24919 00	24994 79	2499A 79	2499A 79
		23924 49 pt	-		24212 23 pt 24212 25 pt	24919 03 24919 05 24919 07	24919 03 24919 05 24919 07		24994 85	2499A 85	2499A 85
23924 46	23924 46	23924 44 pt 23924 45 pt	24212 33	24212 33	24212 22 pt	24919 09	24919 09		24994 89	2499A 89	2499A 89
23924 48	23924 48	23924 47 pt 23924 49 pt	24212 35	24212 35	24212 23 pt	24931 03	24921 03	24920 03	24994 91	2499A 91	2499A 91
23924 50	23924 50	23924 42	24212 37	24212 37	24212 25 pt	24931 05	24921 05	24920 05	24994 97	2499A 97	2499A 97
20324 30	20024 00	23924 44 pt 23924 45 pt	24215 16	24215 16	24215 77 pt	24931 07	24921 07	24920 07	24994 99	2499A 99	2499A 13 pt 2499A 15 pt
23924 51	23924 51	23924 47 pt 23924 49 pt	24215 18	24215 18	24215 78 pt	24931 09	24921 09	24920 09	-		2499A 63 2499A 64 2499A 98
00004.54	00004.54		24215 22	24215 22	24215 77 pt	24931 12	24921 12	24920 12	05110.01	05110.01	
23924 54	23924 54	23924 49 pt	24215 24	24215 24	24215 78 pt	24931 14	24921 14	24920 14	25112 91 25112 98	25112 91 25112 98	25112 99
23924 55 	23924 55	23924 53 pt 23924 52 pt	24261 21 24261 23	24261 21 24261 23	24261 19	24931 16 24931 18	24921 16	24920 16 24920 18	25113 33 25113 35	25113 33 25113 35	25113 31
		23924 53 pt	24262 24	24262 24	24262 23	24931 19	24921 19	24920 19	25113 91	25113 91	25113 98
23924 91	23924 91	23924 83 23924 84	24262 86	24262 86	24262 25	24931 19	24921 19	24920 00	25113 99 25115 17	25113 99 25158 00	25158 00
23924 92	23924 92	23924 85	24266 11	24266 11	24266 00	24933 14	24993 14	24993 14	25115 91	25115 91	25115 98
23924 93	23924 93	23924 86	24266 13	24266 13		24933 15	24993 15	24993 15	25115 99	25115 99	20110 00
23924 95	23924 95	23924 87 23924 88	24290 61	24290 61	24290 63 24290 73	24933 18	24993 18	24993 16 24993 17	25116 21 25116 31 25116 98	25116 21 25116 31 25116 98	25116 99
23924 96	23924 96	23924 89	24290 83	24290 83	24290 81 24290 89	24934 00	24996 00	24996 00	25117 43	25117 43	25117 48
23930 95 23930 96	23930 95 23930 96	23930 93	24312 00	24312 00	24312 75			24996 12 24996 13 24996 15	25117 45 25117 47 25117 49	25117 45 25117 47 25117 49	
23940 61 23940 63 23940 65	23940 61 23940 63 23940 65	23940 98	24312 09	24312 09	24312 11 24312 13			24996 16 24996 17 24996 18 24996 19	25117 63 25117 65 25117 67	25117 63 25117 65 25117 67	25117 61
23952 00	23951 12 23959 11	23951 12 23959 11 pt	24318 73 24318 77	24318 73 24318 77	24318 75	24935 00	26611 00	26611 00	25117 69	25117 69	05400.00
23958 11	23959 11	23955 11 pt	24353 11	24353 11	24353 01 pt	24936 14	24998 14	24998 14	25120 31 25120 35	25120 31 25120 35	25120 32
23958 33	23959 33	23959 33	0.4056.51	0.4055.51	24353 03 pt	24936 15	24998 15	24998 15	25145 12 25145 13	25145 12 25145 13	25141 11
23964 34	23951 34	23951 34	24353 31	24353 31	24353 01 pt 24353 03 pt	24936 16	24998 16	24998 16	25145 15	25145 15	25141 15
23964 37	23951 37	23951 37	24353 98	24353 98	24353 01 pt	24936 17	24998 17	24998 17	25145 17	25145 17	25141 17
23990 97	23990 97	23990 98	24354 27	24354 27	24353 03 pt 24354 29	24937 21	24995 21	24995 21	25145 19	25145 19	25141 98 pt
23990 99	23990 99		24354 31	24354 31	2404 23	24937 31	24995 31	24995 31	25145 21	25145 21	25142 11
24111 09	24111 09	24111 25 pt	24363 11	24363 11	24363 01 pt 24363 03 pt	24992 00	24992 00	24992 00 24992 21	25145 27	25145 27	25142 51
24111 27	24111 27	24111 19 24111 25 pt	24383 31	24383 31	24363 01 pt 24363 03 pt	24994 11	2499A 11	24992 97 2499A 11	25145 98	25145 98	25141 98 pt 25142 71
24112 23	24112 23	24112 27 pt			2-300 03 pt	27007 11	E-300 II	E-100/11			

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	1987]										
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published
25146 12	25146 12	25143 12	26570 31	26510 31	26510 31	26732 23	26436 23	26436 23	26792 96	26494 98	26494 96
25146 14	25146 14	25143 14	26570 41	26510 41	26510 41	26733 11	26437 11	26437 00	26793 00	26496 00	26496 00
25146 22	25146 22	25143 22	26570 51	26510 51	26510 51	26733 12 26733 14	26437 12 26437 14		26794 00	26460 00	26460 11
25146 24	25146 24	25143 24	26570 61	26510 61	26510 61	26741 11	26434 11	26434 11		**********	26460 19
25146 98	25146 98	25143 98	26570 71	26510 71	26510 71	26741 12	26434 12	26434 12	26795 11	26497 11	26497 11
25147 33	25147 33	25144 33	26570 81	26510 81	26510 81	26741 13	26434 13	26434 13	26795 22 26795 23	26497 22 26497 23	26497 21
25147 37	25147 37	25144 37	26570 84	26544 84	26544 10 pt	26741 15	26434 15	26434 15	26795 31	26497 31	26497 31
25147 55	25147 55	25144 55	26570 86	26544 86	26544 12	26742 11	26438 11	26438 11	26795 35	26497 35	26497 35
25147 71	25147 71	25144 71	26570 88	26544 88	26544 14	26742 12	26438 12	26438 12	26795 41	26497 41	26497 41
25147 75	25147 75	25144 75	26570 90	26544 90	26544 10 pt	26751 00	26453 00	26453 00	26795 45	26497 45	26497 45
25147 82	25147 82	25144 92			26544 16	26752 61	26454 61	26454 61	26795 48	26497 48	26497 48
25147 83	25147 83	25144 93	26570 95	26510 95	26510 95	26752 71	26454 71	26454 71	26795 51	26497 51	26497 51
25147 85 25147 87	25147 85 25147 87	25144 94	26570 96 26570 99	26510 96 26510 99	26510 97 pt	26752 97	26454 97	26454 97	26795 55	26497 55	26497 55
25147 91	25147 91	25144 97 pt	26711 00 26711 11	26415 00 26415 11	26415 00	26753 00	26455 00	26455 00	26795 61	26497 61	26497 61
25147 99	25147 99	25144 91	26711 15	26415 15		26761 14	26471 14	26471 14	26795 69	26497 69	26497 69
		25144 97 pt	26712 11	26416 11	26416 11	26761 51	26471 51	26471 51	27213 24	27213 24	27213 21 pt
25152 65	25152 65	25152 67 25152 69	26712 12	26416 12	26416 12	26763 00	26473 00	26473 00	27213 28 27213 30	27213 28 27213 30	27213 29 pt
25190 23	25190 23	25190 41	26713 13 26713 14	26419 13 26419 14	26419 11	26763 88	26473 88	26473 88	27213 32	27213 32	27213 21 pt
25190 25	25190 25	05100.00	26713 18	26419 18	26419 12	26764 11	26474 11	26474 11			27213 23 27213 29 pt
25190 33 25190 35	25190 33 25190 35	25190 32	26713 21	26419 21		26764 25	26474 25	26474 25	27213 34	27213 34	27213 31 pt
25312 13 25312 15	25312 13 25312 15	25312 11	26714 11	2641A 11	2641A 11	26764 27	26474 27	26474 27	27213 38	27213 38	27213 39 pt
25312 33	25312 33	25312 31	26714 12	2641A 12	2641A 12	26764 33	26474 33	26474 33	27213 40	27213 40	07010 01 =
25312 35	25312 35		26714 13	2641A 13	2641A 13	26764 35	26474 35	26474 35	27213 42	27213 42	27213 31 pt 27213 33 27213 39 pt
25312 43 25312 45	25312 43 25312 45	25312 41	26714 14	2641A 14	2641A 14	26764 37	26474 37	26474 37	27213 44	27213 44	27213 41 pt
25312 47	25312 47		26714 15	2641Å 15	2641A 15	26764 41	26474 41	26474 41			27213 45 pt
25425 00	25993 13	25990 97 pt	26714 16	2641A 16	2641A 16	26764 43	26474 43	26474 43	27213 46	27213 46	27213 41 pt 27213 45 pt
25991 00	25991 00	25990 21	26721 13	26411 13	26411 13	26764 45	26474 45	26474 45	27214 24	27214 24	27214 21 pt
25992 31 25992 33	25992 31 , 25992 33	25990 41	26721 53	26411 53	26411 53	26764 47	26474 47	26474 47	27214 28	27214 28	27214 29 pt
25992 35 25992 37	25992 35 25992 37	25990 45	26722 00	26413 00	26413 00	26764 55	26474 55	26474 55	27214 30	27214 30	
25992 47	25992 47	25990 47	26723 00	26414 00	26414 00	26764 71	26474 71	26474 71	27214 32	27214 32	27214 21 pt 27214 23 27214 29 pt
25992 48	25992 48	25990 48	26724 45	2641B 45	2641B 45	26764 76	26474 76	26474 76	27214 34	27214 34	27214 23 pt
25994 51	25993 51	25990 51	26724 51	2641B 51	2641B 51	26764 77	26474 77	26474 77	27214 38	27214 38	•
25994 97	25993 97	25990 97 pt	26724 53	2641B 53	2641B 53	26764 81	26474 81	26474 81	27214 40	27214 40	27214 39 pt
2621B 00	26612 00	26612 00	26724 55 26724 56	2641B 55 2641B 56	2641B 98 pt	26764 99	26474 99	26474 85	27214 42	27214 42	27214 31 pt 27214 33
26530 14	26530 14	26530 29	26724 59	2641B 59	2641B 11 2641B 21	2272 22	00.400.00	26474 98			27214 39 pt
26530 30	26530 30				2641B 98 pt	26770 00	26420 00	26420 00	27214 44	27214 44	27214 41 pt 27214 45 pt
26561 00	26541 00	26541 00	26731 00	26435 00	26435 00	26781 00	26481 00	26481 00	27214 46	27214 46	27214 41 pt
26562 33	26542 33	26542 33	26732 11	26436 11	26436 11	26782 00	26482 00	26482 00	0704 4 70	07044 70	27214 45 pt
26562 35	26542 35	26542 35	26732 12	26436 12	26436 12	26791 21	26493 21	26493 21	2721A 70	2721A 70	2721A 30 pt 2721A 40 pt
26563 10	26545 10	26545 10	26732 13	26436 13	26436 13	26791 23	26493 23	26493 23	2721A 80	2721A 80	2721A 30 pt
26563 12	26545 12	26545 12	26732 14	26436 14	26436 14	26791 26 26791 28	26493 26 26493 28	26493 25	2721A 90	2721A 90	2721A 40 pt
26563 14	26545 14	26545 14	26732 15	26436 15	26436 15	26791 32 26791 33	26493 32 26493 33	26493 31	2721B 70	2721B 70	2721B 30 pt 2721B 40 pt
26563 16	26545 16	26545 16	26732 16	26436 16	26436 16	26791 35	26493 35		2721B 80	2721B 80	
26570 14	26510 14	26510 14	26732 17	26436 17	26436 17	26791 41	26493 41	26493 41			2721B 30 pt
26570 15	26510 15	26510 97 pt	26732 18	26436 18	26436 18	26792 82	26494 82	26494 82	2721B 90	2721B 90	2721B 40 pt
								26494 91	7 2721C 70	2721C 70	2721C 30 pt

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report forms fo	r 1987]					,					
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published
2721C 80	2721C 80	2721C 30 pt	27592 21	2751B 21	27512 11 pt 27512 15 pt	27598 21	2751H 21	27519 25	28230 39	28230 39	28230 33 pt 28230 37 pt
2721C 90	2721C 90	2721C 40 pt			27512 16 pt 27512 18 pt 27512 23 pt	27598 23	2751H 23	27519 29	28241 13	28241 13	28241 14 pt
2731E 57	2731E 57	2731E 43 2731E 55	27592 23	2751B 23	27512 23 pt	27598 25	2751H 25	27519 11			28241 16 pt
27416 00	27416 00	27411 13	27592 27	2751B 27	27512 41 pt	27598 27	2751H 27	27519 81	28241 19 28241 21	28241 19 28241 21	28241 14 pt
27417 13	27417 13	27411 15	21392 21	2/316 2/	27512 41 pt 27512 43 pt	27598 29	2751H 29	27519 85	28241 23	28241 23	28241 16 pt
27417 15 27417 17	27417 15 27417 17	27411 21	27593 12	2751C 12	27513 11	27598 31	2751H 31	27519 98	28241 25	28241 25	28241 14 pt 28241 16 pt
27418 13	27418 13	27412 13	27593 18	2751C 18	27513 17 27513 19	27599 12	27531 12	27531 12	28244 32	28244 32	28244 31 pt 28244 33 pt
27418 15	27418 15	27412 15	27594 11	2751D 11	27514 11	27599 22	27531 22	27531 22	28244 34	28244 34	28244 31 pt
27419 00	27419 00	27414 00	27594 13	2751D 13	27514 13	27599 32	27531 32	27531 32	28244 36	28244 36	
2741A 00	2741A 00	27415 21	27594 15	2751D 15	27514 19	2759A 00 27823 00	2751J 00 27823 00	27510 00 pt 27823 00	28244 38	28244 38	28244 33 pt
2741B 13	2741B 13	27415 11	27594 17	2751D 17	27514 25	27023 00	27023 00	27823 43 27823 45	28244 41	28244 41	28244 31 pt 28244 33 pt
2741B 14	2741B 14	27415 31	27594 19	2751D 19	27514 27	27892 81	27892 81	27892 91	28244 43	28244 43	28244 35
2741B 15	2741B 15	27415 41	27595 12	2751E 12	27515 11	27892 92	27892 92	07040 40	28244 45	28244 45	28244 37
2741B 17	2741B 17	27415 61	27595 14	2751E 14	27515 23	27910 16 27910 18	27910 16 27910 18	27910 12 27910 14	28244 47	28244 47	28244 39
2741B 19 2741B 21	2741B 19	27415 65	27595 16	2751E 16	27515 25	27961 13	27951 13	27951 13	28247 13	28247 13	28243 31 pt 28245 61 pt
2741B 21 2741B 23	2741B 21 2741B 23	27415 95 27415 97	27595 18	2751E 18	27515 31	67004.45	07054.45	35557 77 pt	28247 15	28247 15	28245 73 pt 28243 31 pt
2741B 25	2741B 25	27415 99 pt	27595 20	2751E 20 2751E 22	27515 33 27515 41	27961 15	27951 15	27951 15 35557 77 pt	20247 13	20247 13	28245 61 pt 28245 73 pt
2741B 27	2741B 27	· ·	27595 24	2751E 22	27515 98	27961 17	27951 17	·27951 17 35557 77 pt	28247 16	28247 16	28243 31 pt
2741B 91	2741B 91	27415 51 27415 99 pt	27596 11	2751F 11	27516 13	27961 23	27951 23	27951 23			28245 63 pt 28245 72 pt
27522 15	27522 15	27522 11 pt 27522 13 pt	27596 13	2751F 13	27516 41	27961 29	27951 29	35557 77 pt 27951 29	28247 19	28247 19	28243 31 pt 28245 61 pt
27522 16	27522 16	27522 23 pt	27596 15	2751F 15	27516 51			35557 77 pt			28245 63 pt 28245 72 pt 28245 73 pt
27522 18	27522 18	27522 17 pt	27596 17	2751F 17	27516 71	27962 31	27952 31	27952 31	28247 31	28247 31	28243 33 pt
27522 19	27522 19	27522 00	27596 19	2751F 19	27516 75	27962 39	27952 39	27952 39	28247 33	28247 33	28243 33 pt
27522 20	27522 20	27522 11 pt 27522 13 pt	27596 21	2751F 21	27516 45	27962 41	27952 41	27952 41			28245 66 28245 74
		27522 17 pt 27522 23 pt	27596 23	2751F 23	27516 93	27963 15	27532 15 27532 25	27532 15 27532 25	28247 41	28247 41	28243 39 28245 69
27523 13	27523 13	27523 21 27523 22	27596 25	2751F 25	27516 95	27963 35	27532 35	27532 35			28245 79
27525 23	27525 23	27525 22	27597 12	2751G 12	27511 00	27963 40	27532 55	27532 55	28248 15	28248 15	28246 15
		27525 24	27597 14	2751G 14 2751G 16	27512 13 pt	27963 45	27532 45	27532 65 pt	28248 51 28248 81	28248 51	28246 51
27525 33	27525 33	27525 34 27525 36	27597 18	2751G 18	27512 17 pt 27512 19 pt	27963 47	27532 47		20240 01	20240 01	28246 62 28246 71
27526 11	27526 11	27526 12 27526 14	27597 20	2751G 20		27963 53	27547 00	27547 00	28333 24	28333 24	28333 25
27542 11	27542 11	27542 21 pt	27597 22	2751G 22	27512 13 pt 27512 17 pt 27512 19 pt	27963 61	27930 15	27930 15	28333 26 28351 10	28333 26 2831A 21	2831A 21
27542 13	27542 13	27542 24 pt	27597 24	2751G 24	27512 19 pt	27963 63	27930 17	27930 17	28351 15	2831A 22	2831A 22
27542 15	27542 15	27542 27 pt	27597 26	2751G 26	27512 33 pt	27963 65	27930 21	27930 13 27930 19	28351 20	2831A 24	2831A 24
27542 17	27542 17	27542 21 pt	27597 28	2751G 28	27512 41 pt	27963 67	27940 00	27940 00	28351 25	2831A 25	2831A 25
		27542 24 pt 27542 27 pt	27597 30	2751G 30	27512 43 pt	27963 71	27532 71	27532 65 pt	28351 30	2831A 26	2831A 26
27590 00	27510 00 pt	27510 00 pt	27597 32	2751G 32	27514 00	27963 72 27963 73	27532 72 27532 73	27532 75	28351 35	2831A 41	2831A 27
27591 12	2751A 12	27511 15	27597 34	2751G 34	27515 00	28161 11	28161 11	28161 00	28351 40	2831A 42	2831A 28 2831A 29
27591 14	2751A 14	27511 17	27597 36 27597 38	2751G 36 2751G 38	27516 00	28161 21	28161 21	28162.00	28351 45	2831A 30	20011120
27592 11	2751B 11	27512 11 pt	27598 11	2751H 11	27519 17 pt	28162 30 28162 40 28162 50	28162 30 28162 40 28162 50	28162 98	28352 10	2831A 31	2831 A 31
27592 13	2751B 13	27512 15 pt	27598 13	2751H 13		28162 60	28162 60		28352 15	2831A 51	2831A 32 2831A 33
27592 15 27592 17	2751B 15 2751B 17	27512 23 pt 27512 16 pt	27598 15 27598 17	2751H 15 2751H 17	27519 15 27519 17 pt	28230 34	28230 34	28230 33 pt 28230 37 pt	28352 20	2831 A 61	2831A 35 2831A 36
27592 19	2751B 17	27512 18 pt	27598 19	2751H 19	27519 23	28230 38	28230 38	28230 33 pt 28230 37 pt			2831 A 37
									28352 25	2831A 39	2831A 39

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	-										
1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published	1987 published	1987 collected	1982 published
28361 15	28311 15	28311 15	28511 00— Con.	28511 00— Con.	28511 11— Con.	28750 20	28750 20	28750 11 pt 28750 21 pt	29521 13— Con.	29521 13— Con.	29521 11— Con.
28361 20	28311 20	28311 13 28311 17 28311 19			28511 85 28511 89 28511 93	28750 30	28750 30	28750 31 pt	29521 15 29523 60	29521 15 29523 60	29523 54 pt
28362 10 28362 20	28312 10 28312 20	28312 00	28512 00	28512 00	28512 21 28512 23	28750 40	28750 40	28750 11 pt 28750 21 pt			29523 56 pt
28363 10	28313 10	28317 15	_		28512 25 28512 27 28512 31	28750 50	28750 50	28750 31 pt	29523 62	29523 62	29523 53
28363 20	28313 20	28317 25			28512 33 28512 35	28750 60	28750 60	28750 11 pt 28750 21 pt	29523 64	29523 64	29523 54 pt 29523 56 pt
28364 10 28364 15	28314 10 28314 15	28318 14			28512 37 28512 39 28512 41	28750 70	28750 70	28750 31 pt	29523 66	29523 66	29523 54 pt 29523 56 pt
28364 20 28364 25	28314 20 28314 25	28318 16			28512 43 28512 45 28512 47	28797 51	28797 51	28797 31 28797 81	29990 20 29990 30	2911D 20 2911D 30	2911D 92
28364 30	28314 30	28319 00			28512 49 28512 51 28512 53	28798 30 28798 83	28798 30 28798 83	28798 81	29990 93 29990 99	29990 93 29990 99	29990 98
28411 43	28411 43	28411 42 28411 44			28512 55 28512 58 28512 59	28914 57 28914 98	28914 57 28914 98	28914 89	31116 24	31116 24	31116 23 31116 25
28411 62	28411 62	28411 61 28411 63			28512 61 28512 65	28916 10	28916 10	28915 56 pt	31116 37 31116 38	31116 37 31116 38	31116 72 pt
28412 18	28412 18	28412 05	28513 00	28513 00	28513 01 28513 05	28916 20	28916 20	28915 61 pt	31116 43	31116 43	31116 41
		28412 19			28513 07 28513 11	28916 30	28916 30	28915 63 pt	31110 43	01110 40	31116 72 pt
28413 97	28413 97	28413 51 28413 61			28513 13 28513 16	28916 40	28916 40	28915 65 pt	31116 51	31116 51	31116 53 31116 72 pt
20422 52	20422 52	28413 95 28423 99			28513 27 28513 29 28513 31	28916 50	28916 50	28915 67 pt	31116 57	31116 57	31116 55
28423 53 28423 95	28423 53 28423 95	20423 33	28515 00	28515 00	28515 21	28917 11	28917 11	28915 54			31116 72 pt
28441 49	28441 49	28441 37 28441 39			28515 22 28515 23	28917 21	28917 21	28915 55	31116 62	31116 62	31116 61 31116 72 pt
28443 25 28443 27	28443 25 28443 27	28443 98			28515 31 28515 32 28515 99	28917 31	28917 31	28915 56 pt	31116 63 31116 65	31116 63 31116 65	31116 64 31116 72 pt
28443 95	28443 95		28611 98	28611 98	28611 13 28611 23	28917 41	28917 41	28915 61 pt	31430 00	31430 00	31430 00 31434 00
28444 71	28444 71	28444 73 28444 75			28611 99	28917 51	28917 51 28917 61	28915 63 pt 28915 65 pt			31435 00
28445 02	28445 02	28445 11	28612 31	28612 31	28612 11 28612 21	28917 71	28917 71	28915 67 pt	31440 00	31440 00	31445 00 31446 00 31447 00
28445 03	28445 03	28445 12	28656 58	2911C 58	2911C 58	28920 39	28920 39	28920 35			31448 00
28445 04	28445 04	28445 13	28656 59	2911C 59	2911C 59			28920 37	31490 10	31490 10	31497 23
28445 05	28445 05	28445 14	28691 32	2911B 32	2911B 32	28920 57	28920 57	28920 53 28920 55	31490 20	31490 20	31491 00 31493 00
28445 08 28445 09	28445 08 28445 09	28445 15	28691 33	2911B 33	2911B 33	28995 25 28995 26	28995 25 28995 26	28995 29			31495 00 31496 00 31497 25
28445 50	28445 50	28445 45 28445 48	28695 25 28695 27	28695 25 28695 27	28695 21	28995 40 28995 42	28995 40 28995 42	28995 37	31510 00	31510 00	31510 20 31510 70
28445 59 28445 99	28445 59 28445 99	28445 95	28742 00	28742 00	28742 00 28742 10	28995 45 28995 69	28995 45 28995 69	28995 68	31610 01	31610 01	31610 16 pt 31610 18 pt
28511 00	28511 00	28511 11 28511 21	28744 10	28744 10	28742 71 28744 21 pt	28995 70 28995 71	28995 70 28995 71				31610 35 pt 31610 37 pt 31610 39 pt
		28511 22 28511 24 28511 25 28511 35	28744 20	28744 20	28744 31 pt 28744 11 pt	28995 82 28995 83 28995 84	28995 82 28995 83 28995 84	28995 81	31610 03	31610 03	31610 16 pt 31610 18 pt
		28511 37 28511 38 28511 43			28744 21 pt	28995 88 28995 89	28995 88 28995 89	28995 87			31610 35 pt 31610 37 pt 31610 39 pt
		28511 45 28511 47	28744 30	28744 30	28744 31 pt	28995 94	28995 94	28995 95	31610 05	31610 05	31610 16 pt
		28511 49 28511 53 28511 57	28744 40	28744 40	28744 11 pt 28744 21 pt	28995 96 28995 98	28995 96 28995 98	28995 97			31610 18 pt 31610 35 pt 31610 37 pt
		28511 59 28511 63	28744 50	28744 50	28744 31 pt	28995 99	28995 99	20333 31	04640.07	01610.07	31610 39 pt
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		28511 73 28511 75 28511 77	28744 70	28744 70	28744 31 pt	2911D 23 2911D 25	2911D 23 2911D 25	2911D 21	31610 09	31610 09	31610 16 pt 31610 18 pt 31610 35 pt
		28511 81 28511 83	28750 10	28750 10	28750 21 pt 28750 31 pt	29521 13	29521 13	29521 11			31610 37 pt 31610 39 pt



PUBLICATION PROGRAM

1987 CENSUS OF MANUFACTURES

Publications of the 1987 Census of Manufactures, containing preliminary and final data on manufacturing establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.

Preliminary Reports

Industry series—83 reports (MC87-I-20A(P) to -39D(P))

Preliminary industry data are issued in 83 separate reports covering 459 industries. Preliminary summary data for the U.S and States are released in one report.

Final Reports

Industry series—83 reports (MC87-1-20A to -39D)

Each of the 83 reports provides information for a group of related industries ("dairy products" includes industries for butter, cheese, milk, etc.). Final figures for the United States are shown for each of the 459 manufacturing industries on quantity and value of products shipped and materials consumed, cost of fuels and electric energy, capital expenditures, assets, rents, inventories, employment, payroll, payroll supplements, hours worked, value added by manufacture, number of establishments, and number of companies. Comparative statistics for earlier years are provided where available.

For each industry, data on value of shipments, value added buy manufacture, capital expenditures, employment, and payroll are shown by employment-size class of establishment, State, and degree of primary product specialization.

Geographic area series—51 reports (MC87-A-1 to -51)

A separate report is being published for each State and the District of Columbia. Each report presents data for industry groups and industries on value of shipments, cost of materials, value added by manufacture, employment, payroll, hours worked, new capital expenditures, and number of manufacturing establishments for the State, MSA's, counties, and selected places. Comparative statistics for earlier census years are shown for the State and large MSA's. Manufacturing totals are presented for each county and for places with significant manufacturing activity. Detailed statistics (including inventories, assets, rents, and energy costs) are presented only in statewide totals.

Subject series—7 reports (MC87-S-1 to -7)

Each of the seven reports contains detailed statistics for an individual subject, such as concentration ratios in manufacturing, type of organization, water use in manufacturing, textile machinery in place, distribution of sales by class of customer, manufacturers' shipments to the Federal Government, and a general national-level summary.

Reference series—1 report (MC87-R-1)

The Numerical List of Manufactured and Mineral Products includes a description of the principal products and services published in the 1987 Censuses of Manufactures and Mineral Industries.

Location of Manufacturing Plants—1 report (MC87-LM)

This report includes data for number of establishments by four-digit SIC industry and by employment-size class for counties, incorporated places of 2,500 inhabitants or more, and zip codes for each State. (This report is available only on magnetic tape and CD-ROM.)

Analytical Reports—3 reports (AR87-1 to -3)

Exports From Manufacturing Establishments (AR87-1)

This report presents data on exports by two- and three-digit SIC industry groups for the United States and States. Information is presented on value of direct report shipments and estimates of the employment required to manufacture these products. Included are estimates of employment in manufacturing and nonmanufacturing establishments that supply parts, materials, and services for production of manufactured exports.

Selected Characteristics of Manufacturing Establishments That Export (AR87-2)

This report presents data on the number of manufacturing companies and establishments that export by major group, State, employment size and ratios of exports to shipments.

Indexes of Production (AR87-3)

The indexes presented in this report are designed to measure the change in physical output of each manufacturing and mineral industry between 1982 and 1987.

MICROFICHE

Every final published report in the 1987 Census of Manufactures will be available on microfiche.

PUBLIC-USE COMPUTER TAPES AND COMPACT DISCS

Data from the final industry series, geographic area series, and the Location of Manufacturing Plants report will be available on public-use computer tapes and compact discs-read only memory (CD-ROM). These tapes will provide the same information found in the final reports. Computerized data products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services (Tapes), Bureau of the Census, Washington, DC 20233.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, mineral industries, transportation, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1987 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.









